TABLE AND COLUMN DESCRIPTIONS
FROM THE "TABLE_DESC" TABLE
IN THE SOUTHWESTERN NEVADA VOLCANIC FIELD DATABASE

TABLE_NAME	*COLUMN_NAME*	*SHORT_DESC*	*LONG_DESC*
AGE_DATE		Age date	This table provides age dates and their uncertainties, the minerals dated, and methods employed.
AGE_DATE	SAM_ID	Unique ID for sample	This unique symbol represents up to a few kg of contiguous material from the surface or subsurface. The dash special character (-) designates multiple samples from a single location, and a left parenthesis [(] designates multiple splits from a single sample. Samples from vertical drill holes will always have sam_id's represented by the location, which is the drill hole name, followed by a dash (-) and the sample depth in feet, for example, USWG2-770. Sample depths in meters attach "M" following the metric depth, for example, USWG2-506.65M. Multiple samples from the same location, for example a whole-rock sample and several lithic and pumice separates, will always have sam_id's represented by the location followed followed by a dash (-) and a character string, for example RW18B3-WR, RW18B3-PU1, and RW18B3-PU2.
AGE_DATE	SPL_ID	Unique ID for age date split	This unique symbol represents a split of a sample for age dating. A split represents analysis for a single age date that is performed by a single laboratory from a few g split from the sample. A left parenthesis [(] designates each split from a single sample, such as 102887/3(A, split for a K/Ar age date from sample 102887/3. Multiple age dates of the same split by the same laboratory are considered to represent replicate analyses. To represent split analyses, replicate age dates are averaged according to procedures defined by the analyst. Individual replicate analyses are not stored within the database.
AGE_DATE	DATE_METHOD	Age dating method	This symbol represents the method used for age dating. Allowed symbols are defined in table split_type_list.
AGE_DATE	AGE_95CI	Uncertainty for age date	This value provides the uncertainty for age date at a confidence interval of 2 sigma, in Ma.
AGE_DATE	AGE	Age date	This value provides the age date, in Ma.
AGE_DATE	MIN_CODE	Mineral age dated	This symbol represents the mineral used for age dating. Allowed symbols are defined in table comp_list.
ALT_LIST		Alteration	This table defines symbols that describe alteration, alteration types and groups, and qualitatively indicate a progression of alteration intensity and temperature.

TABLE_NAME	*COLUMN_NAME*	*SHORT_DESC*	*LONG_DESC*
ALT_LIST	ALT_CODE	Symbol for sample alteration	This column provides symbols that represent a mineral or mineral assemblage and process that are dominant contributors to the observed mineralogy. The content of each mineral required to be considered dominant depends on the mineral; for example, zeolites and clays are considered dominant in concentrations of 20% or greater, calcite is considered dominant at 5% or greater, and kaolinite at 2% or greater.
ALT_LIST	ALT_NAME	Sample alteration	This column represents a mineral or mineral assemblage and process that are dominant contributors to the observed mineralogy. The content of each mineral required to be considered dominant depends on the mineral; for example, zeolites and clays are considered dominant in concentrations of 20% or greater, calcite is considered dominant at 5% or greater, and kaolinite at 2% or greater.
ALT_LIST	ALT_SUBASSEMB_RANK	Alteration group rank	This column provides integer values used to qualitatively rank alteration groups by increasing intensity and temperature of alteration. The lowest alteration rank have the lowest intensity, and the lowest temperatures of alteration.
ALT_LIST	ALT_TYPE	Alteration type	This column describes the general type of alteration for the subject alteration.
ALT_LIST	ALT_RANK	Alteration rank	This column provides integer values used to qualitatively rank alteration by increasing intensity and temperature of alteration. The lowest alteration rank have the lowest intensity of alteration, and the lowest temperatures of alteration.
ALT_LIST	ALT_SUBASSEMB_NAME	Alteration group	This column describes the alteration group for the subject alteration.
ANS_LIST		Answers	This table provides answers to questions regarding analyses, procedures, or definitions.
ANS_LIST	ANS_NAME	Answers	This column provides answers to questions regarding analyses, procedures, or definitions.
ANS_LIST	ANS_CODE	name	This column defines symbols that provide answers to questions regarding analyses, procedures, or definitions.
AVAIL_LIST		Availability	This table provides symbols that describe the availability of samples, descriptions, or definitions.
AVAIL_LIST	AVAIL_NAME	Availability	This column describes the availability of samples, descriptions, or definitions.
AVAIL_LIST	AVAIL_CODE	Availability symbol	This column provides symbols that describe the availability of samples, descriptions, or definitions.

TABLE_NAME	*COLUMN_NAME*	*SHORT_DESC*	*LONG_DESC*
CA_COMPUTE_METHOD		Computational method	This table defines the computational method used to reduce chemical analytical data into concentrations.
CA_COMPUTE_METHOD	SPL_ID	Unique ID for chemical split	This unique symbol represents a split of a sample for chemical analysis. A split represents chemical analysis for one or more element that is performed by a single laboratory. Usually, a few g is split from the sample and specially prepared for the analytical procedure. Each laboratory's chemical analysis represents a separate split, even if the analyses are performed by different analysts on widely separated dates. Each batch of sample pulverized for chemical analysis does not necessarily represent a split. A left parenthesis [(] designates each split from a single sample, such as 12/83/7/5(B, an XRF analysis for sample 12/83/7/5. Multiple chemical analyses of the same sample by the same laboratory represent replicate analyses. To represent split analyses, replicate chemical analyses are averaged, weighted by the inverse square of their analytical uncertainties. Individual replicate analyses are not stored within the database, but analysts and analytical dates and other information are provided with the analytical data.
CA_COMPUTE_METHOD	CA_COMP_METH_CODE	Computational method symbol	This symbol defines the computational method used to reduce chemical analytical data into concentrations. Allowed symbols are defined in table ca_comp_meth_list.
CA_COMPUTE_METHOD	OXIDE_CODE	Analyte symbol	This symbol provides standard chemical symbol for analyte. All analytes are represented by forms that dominate their occurrence within terrestrial rocks, mostly as oxides. Allowed analytes are defined in oxide_list, which also provides gravimetric factors to convert all oxide values to equivalent elemental values.
CA_COMPUTE_METHOD_LIST		Computational method	This table defines symbols that describe computational methods used for general types of chemical analysis to reduce the chemical analytical data into concentrations.
CA_COMPUTE_METHOD_LIST	SPLIT_TYPE_CODE	General chemical analysis type	This column defines symbols that identify the general type of chemical analysis for each split.
CA_COMPUTE_METHOD_LIST	CA_COMPUTE_METHOD_NAME	Computational method	This column descnbes the computational method used to reduce chemical analytical data into concentrations.
CA_COMPUTE_METHOD_LIST	CA_COMPUTE_METHOD_CODE	Computational method symbol	This column provides symbols that define the computational method used to reduce chemical analytical data into concentrations.

TABLE_NAME	*COLUMN_NAME*	*SHORT_DESC*	*LONG_DESC*
CA_MEASURE		Chemical data	This table provides chemical data for each sample split. Chemical data included are analyte values or lower detection limits, and analytical uncertainties. Citations for these data are provided in this table, as well as the number of replicates analyzed for each element.
CA_MEASURE	SPL_ID	Unique ID for chemical split	This unique symbol represents a split of a sample for chemical analysis. A split represents chemical analysis for one or more element that is performed by a single laboratory. Usually, a few g is split from the sample and specially prepared for the analytical procedure. Each laboratory's chemical analysis represents a separate split, even if the analyses are performed by different analysts on widely separated dates. Each batch of sample pulverized for chemical analysis does not necessarily represent a split. A left parenthesis [(] designates each split from a single sample, such as 12/83/7/5(B, an XRF analysis for sample 12/83/7/5. Multiple chemical analyses of the same sample by the same laboratory represent replicate analyses. To represent split analyses, replicate chemical analyses are averaged, weighted by the inverse square of their analytical uncertainties. Individual replicate analyses are not stored within the database, but analysts and analytical dates and other information are provided with the analytical data.
CA_MEASURE	OXIDE_CODE	Analyte symbol	This symbol provides standard chemical symbol for analyte. All analytes are represented by forms that dominate their occurrence within terrestrial rocks, mostly as oxides. Allowed analytes are defined in table oxide_list, which also provides gravimetric factors to convert all oxide values to equivalent elemental values.
CA_MEASURE	OXIDE_VALUE	Analyte value	This value provides the analyte concentration, unless this value represents a lower detection limit; such values are represented as oxide_ldl.
CA_MEASURE	UNITS_CODE	Analyte concentration units	This value provides concentration units associated with analytical values. Concentration units are always provided on a weight basis for chemical analyses Allowed symbols are defined in table units_list. The same concentration units are consistently used for each analyte.
CA_MEASURE	N_REP	Replicate chemical analyses	This value represents the number of replicate chemical analyses for each analyte with a chemical split.
CA_MEASURE	REF_CODE	Citation for chemical data	This symbol provides source of chemical data. Allowed symbols are defined in table ref_list.
CA_MEASURE	OXIDE_LDL	Analyte LDL	This value provides the lower detection limit if the analyte is undetectable.
CA_MEASURE	OXIDE_ERROR_METH_CODE	Method for analyte uncertainty	This symbol identifies the method used to define analyte uncertainty. Allowed symbols are defined in table error_meth_list.

TABLE_NAME	*COLUMN_NAME*	*SHORT_DESC*	*LONG_DESC*
CA_MEASURE	OXIDE_ERROR	Analyte uncertainty	This value provides the analyte uncertainty.
CA_PREP		Sample preparation	This table represents the method used to prepare the sample for chemical analysis.
CA_PREP	OXIDE_CODE	Analyte symbol	This symbol provides standard chemical symbol for analyte. All analytes are represented by forms that dominate their occurrence within terrestrial rocks, mostly as oxides. Allowed analytes are defined in oxide_list, which also provides gravimetric factors to convert all oxide values to equivalent elemental values.
CA_PREP	PREP_CODE	Symbol for sample preparation	This symbol represents the method used to prepare the sample for chemical analysis.
CA_PREP	SPL_ID	Unique ID for chemical split	This unique symbol represents a split of a sample for chemical analysis. A split represents chemical analysis for one or more element that is performed by a single laboratory. Usually, a few g is split from the sample and specially prepared for the analytical procedure. Each laboratory's chemical analysis represents a separate split, even if the analyses are performed by different analysts on widely separated dates. Each batch of sample pulverized for chemical analysis does not necessarily represent a split. A left parenthesis [(] designates each split from a single sample, such as 12/83/7/5(B, an XRF analysis for sample 12/83/7/5. Multiple chemical analyses of the same sample by the same laboratory represent replicate analyses. To represent split analyses, replicate chemical analyses are averaged, weighted by the inverse square of their analytical uncertainties. Individual replicate analyses are not stored within the database, but analysts and analytical dates and other information are provided with the analytical data.
CA_PREP_LIST		Sample preparation	This table defines symbols that represent the method used to prepare a sample for chemical analysis.
CA_PREP_LIST	CA_PREP_NAME	Sample preparation	This column represents the method used to prepare a sample for chemical analysis.
CA_PREP_LIST	CA_PREP_CODE	Symbol for sample preparation	This column defines symbols that represent the method used to prepare a sample for chemical analysis.
CA_PREP_LIST	SPLIT_TYPE_CODE	General chemical analysis type	This column defines symbols that identify the general type of chemical analysis for each split.
CA_REP		Replicate ID	This table provides a unique laboratory ID for each replicate of a split.
CA_REP	REP_ID	Replicate ID	This symbol provides a unique laboratory ID for each replicate of a split.

TABLE_NAME	*COLUMN_NAME*	*SHORT_DESC*	*LONG_DESC*
CA_REP	SPL_ID	Unique ID for chemical split	This unique symbol represents a split of a sample for chemical analysis. A split represents chemical analysis for one or more element that is performed by a single laboratory. Usually, a few g is split from the sample and specially prepared for the analytical procedure. Each laboratory's chemical analysis represents a separate split, even if the analyses are performed by different analysts on widely separated dates. Each batch of sample pulverized for chemical analysis does not necessarily represent a split. A left parenthesis [(] designates each split from a single sample, such as 12/83/7/5(B, an XRF analysis for sample 12/83/7/5. Multiple chemical analyses of the same sample by the same laboratory represent replicate analyses. To represent split analyses, replicate chemical analyses are averaged, weighted by the inverse square of their analytical uncertainties. Individual replicate analyses are not stored within the database, but analysts and analytical dates and other information are provided with the analytical data.
CA_REP	OXIDE_CODE	Analyte symbol	This symbol provides standard chemical symbol for analyte. All analytes are represented by forms that dominate their occurrence within terrestrial rocks, mostly as oxides. Allowed analytes are defined in oxide_list, which also provides gravimetric factors to convert all oxide values to equivalent elemental values.
CA_REP_OXIDE		Replicate ID	This table provides unique laboratory ID's for an analyte or group of analytes within each replicate of a split when analytes are not analyzed by the same method.
CA_REP_OXIDE	OXIDE_CODE	Analyte symbol	This symbol provides standard chemical symbol for analyte. All analytes are represented by forms that dominate their occurrence within terrestrial rocks, mostly as oxides. Allowed analytes are defined in table oxide_list, which also provides gravimetric factors to convert all oxide values to equivalent elemental values.

TABLE_NAME	*COLUMN_NAME*	*SHORT_DESC*	*LONG_DESC*
CA_REP_OXIDE	SPL_ID	Unique ID for chemical split	This unique symbol represents a split of a sample for chemical analysis. A split represents chemical analysis for one or more element that is performed by a single laboratory. Usually, a few g is split from the sample and specially prepared for the analytical procedure. Each laboratory's chemical analysis represents a separate split, even if the analyses are performed by different analysts on widely separated dates. Each batch of sample pulverized for chemical analysis does not necessarily represent a split. A left parenthesis [(] designates each split from a single sample, such as 12/83/7/5(B, an XRF analysis for sample 12/83/7/5. Multiple chemical analyses of the same sample by the same laboratory represent replicate analyses. To represent split analyses, replicate chemical analyses are averaged, weighted by the inverse square of their analytical uncertainties. Individual replicate analyses are not stored within the database, but analysts and analytical dates and other information are provided with the analytical data.
CA_REP_OXIDE	REP_ID	Replicate ID	This symbol provide unique laboratory ID's for an analyte or group of analytes within each replicate of a split when analytes are not analyzed by the same method.
CA_REP_PREP		Sample preparation	This table represents the method used to prepare the sample for chemical analysis.
CA_REP_PREP	SPL_ID	Unique ID for chemical split	This unique symbol represents a split of a sample for chemical analysis. A split represents chemical analysis for one or more element that is performed by a single laboratory. Usually, a few g is split from the sample and specially prepared for the analytical procedure. Each laboratory's chemical analysis represents a separate split, even if the analyses are performed by different analysts on widely separated dates. Each batch of sample pulverized for chemical analysis does not necessarily represent a split. A left parenthesis [(] designates each split from a single sample, such as 12/83/7/5(B, an XRF analysis for sample 12/83/7/5. Multiple chemical analyses of the same sample by the same laboratory represent replicate analyses. To represent split analyses, replicate chemical analyses are averaged, weighted by the inverse square of their analytical uncertainties. Individual replicate analyses are not stored within the database, but analysts and analytical dates and other information are provided with the analytical data.
CA_REP_PREP	REP_ID	Replicate ID	This symbol provides a unique laboratory ID for each replicate of a split.
CA_REP_PREP	PREP_CODE	Symbol for sample preparation	This symbol represents the method used to prepare the sample for chemical analysis.
CA_REP_WORKER		Chemical analyst	This table defines the chemical analysts.

TABLE_NAME	*COLUMN_NAME*	*SHORT_DESC*	*LONG_DESC*
CA_REP_WORKER	WORK_DATE	Date of chemical analysis	Chemical analysis was performed on this date.
CA_REP_WORKER	WORKER_CODE	Chemical analyst	This symbol defines the chemical analysts. Allowed symbols, generally the worker's initials, are defined in table worker_list.
CA_REP_WORKER	SPL_ID	Unique ID for chemical split	This unique symbol represents a split of a sample for chemical analysis. A split represents chemical analysis for one or more element that is performed by a single laboratory. Usually, a few g is split from the sample and specially prepared for the analytical procedure. Each laboratory's chemical analysis represents a separate split, even if the analyses are performed by different analysts on widely separated dates. Each batch of sample pulverized for chemical analysis does not necessarily represent a split. A left parenthesis [(] designates each split from a single sample, such as 12/83/7/5(B, an XRF analysis for sample 12/83/7/5. Multiple chemical analyses of the same sample by the same laboratory represent replicate analyses. To represent split analyses, replicate chemical analyses are averaged, weighted by the inverse square of their analytical uncertainties. Individual replicate analyses are not stored within the database, but analysts and analytical dates and other information are provided with the analytical data.
CA_REP_WORKER	REP_ID	Replicate ID	This symbol provide unique laboratory ID's for an analyte or group of analytes within each replicate of a split when analytes are not analyzed by the same method.
CA_SPL_REP		Replicate ID	This table provides a unique laboratory ID for each replicate of a split.
CA_SPL_REP	REP_ID	Replicate ID	This symbol provides a unique laboratory ID for each replicate of a split.
CA_SPL_REP	SPL_ID	Unique ID for chemical split	This unique symbol represents a split of a sample for chemical analysis. A split represents chemical analysis for one or more element that is performed by a single laboratory. Usually, a few g is split from the sample and specially prepared for the analytical procedure. Each laboratory's chemical analysis represents a separate split, even if the analyses are performed by different analysts on widely separated dates. Each batch of sample pulverized for chemical analysis does not necessarily represent a split. A left parenthesis [(] designates each split from a single sample, such as 12/83/7/5(B, an XRF analysis for sample 12/83/7/5. Multiple chemical analyses of the same sample by the same laboratory represent replicate analyses. To represent split analyses, replicate chemical analyses are averaged, weighted by the inverse square of their analytical uncertainties. Individual replicate analyses are not stored within the database, but analysts and analytical dates and other information are provided with the analytical data.

TABLE_NAME	*COLUMN_NAME*	*SHORT_DESC*	*LONG_DESC*
CA_SPLIT		Chemical analysis type	This table provides the general type of chemical analysis for each split.
CA_SPLIT	SAM_ID	Unique ID for sample	This unique symbol represents up to a few kg of contiguous material from the surface or subsurface. The dash special character (-) designates multiple samples from a single location, and a left parenthesis [(] designates multiple splits from a single sample. Samples from vertical drill holes will always have sam_id's represented by the location, which is the drill hole name, followed by a dash (-) and the sample depth in feet, for example, USWG2-770. Sample depths in meters attach "M" following the metric depth, for example, USWG2-506.65M. Multiple samples from the same location, for example a whole-rock sample and several lithic and pumice separates, will always have sam_id's represented by the location followed followed by a dash (-) and a character string, for example RW18B3-WR, RW18B3-PU1, and RW18B3-PU2.
CA_SPLIT	CA_TYPE_CODE	General type of chemical analysis	This symbol identifies the general type of chemical analysis for split. Allowed symbols are defined in table split_type_list.
CA_SPLIT	SPL_ID	Unique ID for chemical split	This unique symbol represents a split of a sample for chemical analysis. A split represents chemical analysis for one or more element that is performed by a single laboratory. Usually, a few g is split from the sample and specially prepared for the analytical procedure. Each laboratory's chemical analysis represents a separate split, even if the analyses are performed by different analysts on widely separated dates. Each batch of sample pulverized for chemical analysis does not necessarily represent a split. A left parenthesis [(] designates each split from a single sample, such as 12/83/7/5(B, an XRF analysis for sample 12/83/7/5. Multiple chemical analyses of the same sample by the same laboratory represent replicate analyses. To represent split analyses, replicate chemical analyses are averaged, weighted by the inverse square of their analytical uncertainties. Individual replicate analyses are not stored within the database, but analysts and analytical dates and other information are provided with the analytical data.
CA_SUBTYPE		Type of chemical analysis	This table identifies the specific type of chemical analysis for each element.

TABLE_NAME	*COLUMN_NAME*	*SHORT_DESC*	*LONG_DESC*
CA_SUBTYPE	SPL_ID	Unique ID for chemical split	This unique symbol represents a split of a sample for chemical analysis. A split represents chemical analysis for one or more element that is performed by a single laboratory. Usually, a few g is split from the sample and specially prepared for the analytical procedure. Each laboratory's chemical analysis represents a separate split, even if the analyses are performed by different analysts on widely separated dates. Each batch of sample pulverized for chemical analysis does not necessarily represent a split. A left parenthesis [(] designates each split from a single sample, such as 12/83/7/5(B, an XRF analysis for sample 12/83/7/5. Multiple chemical analyses of the same sample by the same laboratory represent replicate analyses. To represent split analyses, replicate chemical analyses are averaged, weighted by the inverse square of their analytical uncertainties. Individual replicate analyses are not stored within the database, but analysts and analytical dates and other information are provided with the analytical data.
CA_SUBTYPE	CA_SUBTYPE_CODE	Type of chemical analysis	This symbol identifies the specific type of chemical analysis for each split. Allowed symbols are defined in ca_subtype_list.
CA_SUBTYPE	OXIDE_CODE	Analyte symbol	This symbol provides standard chemical symbol for analyte. All analytes are represented by forms that dominate their occurrence within terrestrial rocks, mostly as oxides. Allowed analytes are defined in oxide_list, which also provides gravimetric factors to convert all oxide values to equivalent elemental values.
CA_SUBTYPE_LIST		Type of chemical analysis	This table defines symbols that identify specific and general types of chemical analysis for each split.
CA_SUBTYPE_LIST	SPLIT_TYPE_CODE	General chemical analysis type	This column defines symbols that identify the general type of chemical analysis for each split.
CA_SUBTYPE_LIST	CA_SUBTYPE_NAME	Type of chemical analysis	This column identifies specific types of chemical analyses for each split.
CA_SUBTYPE_LIST	CA_SUBTYPE_CODE	Chemical analysis symbol	This column defines symbols that identify the specific type of chemical analysis for each split.
CA_WORKER		Chemical analyst	This table defines the chemical analysts.
CA_WORKER	WORK_DATE	Date of chemical analysis	Chemical analysis was performed on this date.

TABLE_NAME	*COLUMN_NAME*	*SHORT_DESC*	*LONG_DESC*
CA_WORKER	SPL_ID	Unique ID for chemical split	This unique symbol represents a split of a sample for chemical analysis. A split represents chemical analysis for one or more element that is performed by a single laboratory. Usually, a few g is split from the sample and specially prepared for the analytical procedure. Each laboratory's chemical analysis represents a separate split, even if the analyses are performed by different analysts on widely separated dates. Each batch of sample pulverized for chemical analysis does not necessarily represent a split. A left parenthesis [(] designates each split from a single sample, such as 12/83/7/5(B, an XRF analysis for sample 12/83/7/5. Multiple chemical analyses of the same sample by the same laboratory represent replicate analyses. To represent split analyses, replicate chemical analyses are averaged, weighted by the inverse square of their analytical uncertainties. Individual replicate analyses are not stored within the database, but analysts and analytical dates and other information are provided with the analytical data.
CA_WORKER	WORKER_CODE	Chemical analyst	This symbol defines the chemical analysts. Allowed symbols, generally the worker's initials, are defined in table worker_list.
CA_WORKER	OXIDE_CODE	Analyte symbol	This symbol provides standard chemical symbol for analyte. All analytes are represented by forms that dominate their occurrence within terrestrial rocks, mostly as oxides. Allowed analytes are defined in table oxide_list, which also provides gravimetric factors to convert all oxide values to equivalent elemental values.
CALDERA		Calderas of the SWNVF	This table defines symbols and provides citations for calderas recognized or hypothesized within the southwestern Nevada volcanic field.
CALDERA	CALDERA_CODE	Calderas of the SWNVF	This column defines symbols for calderas recognized or hypothesized within the southwestern Nevada volcanic field.
CALDERA	CALDERA_REF_CODE	Citations for calderas of the SWNVF	This column provides citations for subject calderas recognized or hypothesized within the southwestern Nevada volcanic field.
CALDERA	CALDERA_NAME	Calderas of the SWNVF	This column provides names for calderas recognized or hypothesized within the southwestern Nevada volcanic field.
COMP_ALT_LIST		Component alteration	This table defines symbols that describe the general alteration of a mineral component. Alterations for individual grain components of the subject mineral are provided in table ma_gr_comp_texture.
COMP_ALT_LIST	COMP_ALT_NAME	Component alteration	This column describes the general alteration of a mineral component. Alterations for individual grain components of the subject mineral are provided in table ma_gr_comp_texture.

TABLE_NAME	*COLUMN_NAME*	*SHORT_DESC*	*LONG_DESC*
COMP_ALT_LIST	COMP_ALT_CODE	Component alteration	This column provides symbols that describe the general alteration of a mineral component. Alterations for individual grain components of the subject mineral are provided in table ma_gr_comp_texture.
COMP_LIST		Component list	This table defines symbols for components and component groups analyzed by petrography, age dating, and X-ray diffraction
COMP_LIST	COMP_GROUP_CODE	Component group code	This column provides symbols that group components into common general classifications such as secondary minerals and pyroclasts.
COMP_LIST	COMP_NAME	Component	This column provides components analyzed, which include minerals, specified materials such as brown glass, and assemblages such as lithics.
COMP_LIST	COMP_CODE	Component code	This column provides symbols that define components, which include minerals, specified materials such as brown glass, and assemblages such as lithics.
END_MEMBER_LIST		Mineral end members	This table defines symbols for end members of selected minerals. Values for these end members have been calculated from analyte concentrations determined by microprobe analysis.
END_MEMBER_LIST	END_MEMBER_DESC	Description for mineral end member	This column provides briefly described computational methods for end members.
END_MEMBER_LIST	END_MEMBER_CODE	Symbol for mineral end member	This column provides symbols for end members of selected minerals.
END_MEMBER_LIST	END_MEMBER_NAME	Name for mineral end member	This column provides names for end members of selected minerals.
ERROR_METH_LIST		List of methods for analyte uncertainty	This table defines symbols that identify the method used to define analyte uncertainty.
ERROR_METH_LIST	ERROR_METH_NAME	Method for analyte uncertainty	This column describes methods used to define analyte uncertainty.
ERROR_METH_LIST	ERROR_METH_CODE	Method for analyte uncertainty	This column provides symbols that identify the method used to define analyte uncertainty.
FRAC_LIST		Fracture intensity	This table defines symbols that describe the general intensity of fracturing within rock.
FRAC_LIST	FRAC_NAME	Fracture intensity	This column describes the general intensity of fracturing within rock.

TABLE_NAME	*COLUMN_NAME*	*SHORT_DESC*	*LONG_DESC*
FRAC_LIST	FRAC_CODE	Fracture code	This column defines symbols that describe the general intensity of fracturing within rock.
GEOL_INT		Geologic intervals	This table provides important physical, relational, and other characteristics for successive intervals within drill holes, termed geologic intervals. Intervals are defined both by depths and elevations. Physical characteristics are lithology, alteration, minor alteration, fracture intensity, and lithophysal zones. Relational characteristics are stratigraphic assignment and stratigraphic assignments for bounding units.
GEOL_INT	LOC_ID	Unique ID for drill hole	This symbol represents a drill hole. Names have been abbreviated in some cases, for example, PM1 is the unique ID for drill hole Pahute Mesa Exploratory well #1. If doubt exists regarding the true identity of a unique ID for any drill hole, then the coordinates provided in table location can be used to resolve the uncertainty.
GEOL_INT	STRAT_CODE_U	Stratigraphic unit above geologic interval	This symbol identifies the stratigraphic unit above geologic interval when topic_code is for stratigraphic unit. Allowed symbols are defined in table strat.
GEOL_INT	VALUE_CODE	Value for geologic interval	Depending on the topic, this symbol defines the stratigraphic unit, lithology, alteration, minor alteration, fracture intensity, or lithophysal zone for the depth interval specified within the drill hole specified.
GEOL_INT	VALUE_RANK	Alteration rank	This integer value ranks the importance of alteration or minor alteration within each geologic interval. The more important the alteration or minor alteration, the lower the integer value.
GEOL_INT	TOPIC_CODE	Topic for geologic interval	This symbol identifies topic for geologic interval. Allowed symbols are defined in table topic_list.
GEOL_INT	STRAT_CODE_L	Stratigraphic unit below geologic interval	This symbol identifies the stratigraphic unit below geologic interval when topic_code is for stratigraphic unit. Allowed symbols are defined in table strat.
GEOL_INT	DEPTH_U	Upper depth of geologic interval	This value provides the upper depth in meters beneath the surface for the geologic interval.
GEOL_INT	ELEV_U	Upper elevation of geologic interval	This value provides the upper elevation of geologic interval in meters above mean sea level.
GEOL_INT	DEPTH_L	Lower depth of geologic interval	This value provides the lower depth in meters beneath the surface for the geologic interval.

TABLE_NAME	*COLUMN_NAME*	*SHORT_DESC*	*LONG_DESC*
GEOL_INT	ELEV_L	Lower elevation of geologic interval	This value provides the lower elevation of geologic interval in meters above mean sea level.
GEOL_INT_DESC_LIST		Geologic intervals	This table defines symbols that provide important physical, relational, and other characteristics for successive intervals within drill holes, termed geologic intervals. Intervals are defined both by depths and elevations. Physical characteristics are lithology, alteration, minor alteration, fracture intensity, and lithophysal zones. Relational characteristics are stratigraphic assignment and stratigraphic assignments for bounding units.
GEOL_INT_DESC_LIST	GEOL_INT_DESC_NAME	Value for geologic interval	Depending on the topic, this column defines the stratigraphic unit, lithology, alteration, minor alteration, fracture intensity, or lithophysal zone for the depth interval specified within the drill hole specified.
GEOL_INT_DESC_LIST	GEOL_INT_DESC_CODE	Value for geologic interval	Depending on the topic, this column defines symbols for the stratigraphic unit, lithology, alteration, minor alteration, fracture intensity, or lithophysal zone for the depth interval specified within the drill hole specified.
GEOL_INT_REF		Citations for geologic interval characteristics	This table provides citations for sources of information that describe the physical and relational character of each geologic interval.
GEOL_INT_REF	DEPTH_L	Lower depth limit for citation supporting geologic interval	This value provides the lower depth in meters beneath the surface that the citation provided supports data for the geologic interval.
GEOL_INT_REF	TOPIC_CODE	Topic for citation supporting geologic interval	This symbol identifies topic that citation supports for geologic interval. Allowed symbols are defined in table topic_list.
GEOL_INT_REF	DEPTH_U	Upper depth limit for citation supporting geologic interval	This value provides the upper depth in meters beneath the surface that the citation provided supports data for the geologic interval.
GEOL_INT_REF	LOC_ID	Unique ID for drill hole	This symbol represents a drill hole. Names have been abbreviated in some cases, for example, PM1 is the unique ID for drill hole Pahute Mesa Exploratory well #1. If doubt exists regarding the true identity of a unique ID for any drill hole, then the coordinates provided in table location can be used to resolve the uncertainty.
GEOL_INT_REF	REF_CODE	Citation for geologic interval	This symbol provides source of data for geologic interval specified by topic. Allowed symbols are defined in table ref_list.

TABLE_NAME	*COLUMN_NAME*	*SHORT_DESC*	*LONG_DESC*
HUE_LIST		Component hue	This table provides the hue of the component described. Hues are those defined by the widely-used rock color chart published by the Geological Society of America.
HUE_LIST	HUE_CODE	Component hue symbol	This column defines symbols that provide the hue of the component described. Hues are those defined by the widely-used rock color chart published by the Geological Society of America.
HUE_LIST	HUE_NAME	Component hue	This column provides the hue of the component described. Hues are those defined by the widely-used rock color chart published by the Geological Society of America.
LIGHT_TYPE_LIST		Point count light source	This table defines symbols that provide the least effective light source used for any petrographic analyses by point count. The most effective use of light source is a point count performed in reflected light but with transmitted light available to aid identifications.
LIGHT_TYPE_LIST	LIGHT_TYPE_NAME	Point count light source	This column provides the least effective light source used for any petrographic analyses by point count. The most effective use of light source is a point count performed in reflected light but with transmitted light available to aid identifications.
LIGHT_TYPE_LIST	LIGHT_TYPE_CODE	Point count light source	This column defines symbols that provide the least effective light source used for any petrographic analyses by point count. The most effective use of light source is a point count performed in reflected light but with transmitted light available to aid identifications.
LITH_GROUP_MAP		Lithologic group	This table defines general lithologic groups.
LITH_GROUP_MAP	LITH_CODE	Lithology symbol	This column defines symbols that describe the lithology of sample.
LITH_GROUP_MAP	LITH_GROUP_CODE	Symbol for lithologic group	This column defines general lithologic groups. Allowed symbols are defined by lith_code.
LITH_LIST		Lithology	This table defines symbols for lithologies of the southwestern Nevada volcanic field.
LITH_LIST	LITH_CODE	Lithology symbol	This column defines symbols that describe the lithology of sample.
LITH_LIST	LITH_NAME	Lithology	This column defines lithologies observed for samples from the southwestern Nevada volcanic field.
LOC_QA_LIST		Method to define coordinates	This table defines symbols that describe the method used to determine X, Y coordinates for a sample location. The table also includes measures of the quality of these coordinates.

TABLE_NAME	*COLUMN_NAME*	*SHORT_DESC*	*LONG_DESC*
LOC_QA_LIST	LOC_QA_95CI	Uncertainty for coordinates	This column provides uncertainties in meters for sample locations, at a two sigma confidence interval.
LOC_QA_LIST	LOC_QA_CODE	Method to define coordinates	This column defines symbols that provide the method used to determine X, Y coordinates for a sample location.
LOC_QA_LIST	LOC_QA_RANK	Rank of quality for coordinates	This column provides integer values used to rank the quality of X, Y coordinates for sample locations. The lowest ranks have the highest quality.
LOC_QA_LIST	LOC_QA_NAME	Method to define coordinates	This column describes the method used to determine X, Y coordinates for a sample location.
LOC_SAM_SPLIT		Split type	This table provides the type of analysis for each split, and its location and sample ID's.
LOC_SAM_SPLIT	LOC_ID	Unique ID for specific location on surface	This unique symbol represents a specific, usually unique location on the surface, or a specific, usually unique location within a tunnel. The dash character (-) is reserved for sample IDs and therefore dashes in published locations are converted to a foreslash (/). Thus 11/102/7A is the loc_id for a sample identified by its collector as 11-102-7-A.
LOC_SAM_SPLIT	SAM_ID	Unique ID for sample	This unique symbol represents up to a few kg of contiguous material from the surface or subsurface. The dash special character (-) designates multiple samples from a single location, and a left parenthesis [(] designates multiple splits from a single sample. Samples from vertical drill holes will always have sam_id's represented by the location, which is the drill hole name, followed by a dash (-) and the sample depth in feet, for example, USWG2-770. Sample depths in meters attach "M" following the metric depth, for example, USWG2-506.65M. Multiple samples from the same location, for example a whole-rock sample and several lithic and pumice separates, will always have sam_id's represented by the location followed followed by a dash (-) and a character string, for example RW18B3-WR, RW18B3-PU1, and RW18B3-PU2.
LOC_SAM_SPLIT	SPLIT_TYPE_CODE	Topic for split data referenced	This symbol identifies topic for split data referenced. Allowed symbols are defined in table split_type_list.

TABLE_NAME	*COLUMN_NAME*	*SHORT_DESC*	*LONG_DESC*
LOC_SAM_SPLIT	SPL_ID	Unique ID for split	This unique symbol represents a split of a sample for analysis. A split represents analysis for one or more element or component that is performed by a single laboratory. Usually, a few g is split from the sample and specially prepared for the analytical procedure, such as a glass-covered thin section for petrographic analysis or pulverized rock for chemical analysis. Each thin section and each laboratory's chemical analysis represents a separate split, even if the analyses are performed by different analysts on widely separated dates. Each thin section represents a split, but each batch of sample pulverized for chemical analysis does not. A left parenthesis [(] designates each split from a single sample, such as BH86N/33(B, a polished thin section for sample BH86N/33. Multiple chemical analyses of the same sample by the same laboratory and multiple analyses of the same thin section are considered to represent replicate analyses. To represent split analyses, replicate chemical analyses are averaged, weighted by the inverse square of their analytical uncertainties. Replicate petrographic analyses are ranked; analyses of the same rank are averaged, weighted by the number of point counted. Individual replicate analyses are not stored within the database, but analysts and analytical dates and other information are provided with the analytical data.
LOCATION		Describes sample locations	This table provides coordinates and elevations, and their uncertainties. Table also identifies the topographic quadrangle from which the sample was collected and the symbol for the map unit on a geologic map. Sources of information are identified in table location_ref.
LOCATION	LOC_ID	Unique ID for specific location on surface	This unique symbol represents a specific, usually unique location on the surface, or a specific, usually unique location within a tunnel. The dash character (-) is reserved for sample IDs and therefore dashes in published locations are converted to a foreslash (/). Thus 11/102/7A is the loc_id for a sample identified by its collector as 11-102-7-A.
LOCATION	LOC_QA_CODE	Method to define coordinates	This symbol provides the method used to determine X, Y coordinates for a sample location. Allowed symbols are defined by table loc_qa_list.
LOCATION	UTM_E	UTM easting, 1927 NAD	This value is the Easting for location in Zone 11 of Universal Transverse Mercator projection, 1927 North American datum.
LOCATION	UTM_N	UTM northing, 1927 NAD	This value is the Northing for location in Zone 11 of Universal Transverse Mercator projection, 1927 North American datum.
LOCATION	UTM_ERROR	Total uncertainty in meters for location	This value is the combined uncertainty in meters for easting and northing.

TABLE_NAME	*COLUMN_NAME*	*SHORT_DESC*	*LONG_DESC*
LOCATION	SURF_ELEV	Elevation at surface in meters	This value is the elevation above mean sea level in meters at surface or within tunnel at location.
LOCATION	SURF_ELEV_ERROR	Surface elevation uncertainty in meters	This value is the uncertainty in elevation above mean sea level for surface or within tunnel at location.
LOCATION	QUAD_CODE	USGS quad symbol	This symbol defines the U.S. Geological Survey topographic quadrangle for location. Allowed symbols are defined by table quad_list.
LOCATION	MAP_UNIT_CODE	Geologic map symbol	This is the symbol used in geologic map for geologic unit mapped at location. The symbol is honored exactly as shown at location on the geologic map.
LOCATION_REF		Sources of information for location	This table identifies sources of information for sample coordinates and elevations, and their uncertainties, and for the unit mapped at the sample location.
LOCATION_REF	LOC_ID	Unique ID for specific location on surface	This unique symbol represents a specific, usually unique location on the surface, or a specific, usually unique location within a tunnel. The dash character (-) is reserved for sample IDs and therefore dashes in published locations are converted to a foreslash (/). Thus 11/102/7A is the loc_id for a sample identified by its collector as 11-102-7-A.
LOCATION_REF	LOC_REF_TYPE_CODE	Topic for location data referenced	This symbol identifies topic for location data referenced. Allowed symbols are defined in table topic_list.
LOCATION_REF	LOC_REF_CODE	Citation for location topic	This symbol identifies source of data specified by loc_ref_type_code. Allowed symbols are defined in table ref_list.
MA_CLAST		Individual clast analyses	This table provides a variety of information for each clast that includes its stratigraphic assignment, lithology, and alteration, its type, and area in thin section.
MA_CLAST	CLAST_STRAT_CODE	Clast stratigraphic unit	This symbol represents the stratigraphic unit of the southwestern Nevada volcanic field assigned to the clast. Allowed symbols are defined in table strat.
MA_CLAST	CLAST_PA_METH_CODE	Clast petrographic method	This symbol defines the method used to determine the suite of phenocrysts absent from the subject clast. Allowed symbols are defined in table pa_meth_list. Methods for phenocrysts (and groundmass and secondary minerals) that are nonzero are defined in table ma_gr_comp. The set of phenocrysts absent from the subject clast consists of all phenocrysts in table comp_code, minus those listed for the subject clast in table ma_gr_comp.

TABLE_NAME	*COLUMN_NAME*	*SHORT_DESC*	*LONG_DESC*
MA_CLAST	CLAST_QA_CODE	QA level for clast analysis	This value defines the quality of multiple petrographic analyses for the same clast, irrespective of method used in the analysis. The lowest values for QA level indicate the highest quality analyses. Only petrographic analyses with a QA level of 1 should be used except to compare petrographic data obtained by different methods. Allowed values are defined in table qa_list.
MA_CLAST	WORK_DATE	Date of clast analysis	All petrographic data for clast specified was reduced on this date.
MA_CLAST	WORKER_CODE	Clast analyst	This symbol defines the clast analyst. Allowed symbols, generally the worker's initials, are defined in table worker_list.
MA_CLAST	CLAST_VOID_PERCENT	Clast void content	This value provides the void content in percent for each clast. This value is generally provided only for vitric pyroclasts, and not for lithics.
MA_CLAST	CLAST_COUNTS	Points counted on clast	This value provides the number of points counted on the subject clast; the total number of points is that represented for the same clast type in table pa_count. Points counted for any component within the clast, as represented in table ma_gr_comp, are included in the number of points counted on the subject clast. The only exception is for hosted clasts of the same type, for example, lithics in a clast of tuff. Counts on such hosted clasts are not included in the number of points counted for the host clast. Hosted clasts are identified with a character appended to the clast_id of the host clast; for example, LI2A is a lithic hosted by lithic LI2.
MA_CLAST	CLAST_LITH_CODE	Clast lithology	This symbol describes the lithology of the clast. Allowed symbols are defined in table lith_list.
MA_CLAST	CLAST_UNK_STRAT_ID	Unknown stratigraphic unit	This character string is used to indicate that 2 or more clasts within a split represent the same unit of unknown stratigraphic assignment.
MA_CLAST	SPL_ID	Unique ID for petrographic split	This unique symbol represents a split of a sample for petrographic analysis. A petrographic split represents analysis for one or more component. All petrographic splits are individual thin sections, even if analyses are performed by different analysts on widely separated dates. A left parenthesis [(] designates each split from a single sample, such as BH86N/33(B, a polished thin section for sample BH86N/33. Multiple analyses of the same thin section represent replicate analyses. To represent split analyses, replicate petrographic analyses are ranked; analyses of the same rank are averaged, weighted by the number of point counted. Individual replicate analyses are not stored within the database, but analysts and analytical dates and other information are provided with the analytical data.

TABLE_NAME	*COLUMN_NAME*	*SHORT_DESC*	*LONG_DESC*
MA_CLAST	CLAST_CODE	Clast type	This symbol identifies the clast type for the subject clast. Allowed symbols are defined in table comp_list as daughters of the component "clast".
MA_CLAST	CLAST_AREA	Clast area	This value is the area of the clast in mm2.
MA_CLAST	CLAST_AREA_METH_CODE	Clast area method	This symbol defines the method used to determine the area of the subject clast. Allowed symbols are defined in table pa_meth_list.
MA_CLAST	CLAST_ID	Clast ID	This symbol uniqely identifies a clast within a petrographic split.
MA_CLAST_ALT		Clast alteration	This table describes a mineral or mineral assemblage and process that are dominant contributors to the observed mineralogy of the subject clast. The content of each mineral required to be considered dominant depends on the mineral; for example, zeolites and clays are considered dominant in concentrations of 20% or greater, calcite is considered dominant at 5% or greater, and kaolinite at 2% or greater. A mineral or mineral assemblage and process that are minor contributors to the observed mineralogy of the subject clast are described in table ma_clast_malt.
MA_CLAST_ALT	CLAST_ALT_CODE	Clast alteration	This symbol represents a mineral or mineral assemblage and process that are dominant contributors to the observed mineralogy of the subject clast. The content of each mineral required to be considered dominant depends on the mineral; for example, zeolites and clays are considered dominant in concentrations of 20% or greater, calcite is considered dominant at 5% or greater, and kaolinite at 2% or greater. Allowed symbols are defined in table alt_list.
MA_CLAST_ALT	SPL_ID	Unique ID for petrographic split	This unique symbol represents a split of a sample for petrographic analysis. A petrographic split represents analysis for one or more component. All petrographic splits are individual thin sections, even if analyses are performed by different analysts on widely separated dates. A left parenthesis [(] designates each split from a single sample, such as BH86N/33(B, a polished thin section for sample BH86N/33. Multiple analyses of the same thin section represent replicate analyses. To represent split analyses, replicate petrographic analyses are ranked; analyses of the same rank are averaged, weighted by the number of point counted. Individual replicate analyses are not stored within the database, but analysts and analytical dates and other information are provided with the analytical data.
MA_CLAST_ALT	CLAST_ID	Clast ID	This symbol uniqely identifies a clast within a petrographic split.

TABLE_NAME	*COLUMN_NAME*	*SHORT_DESC*	*LONG_DESC*
MA_CLAST_ALT	CLAST_QA_CODE	QA level for clast analysis	This value defines the quality of multiple petrographic analyses for the same clast, irrespective of method used in the analysis. The lowest values for QA level indicate the highest quality analyses. Only petrographic analyses with a QA level of 1 should be used except to compare petrographic data obtained by different methods. Allowed values are defined in table qa_list.
MA_CLAST_MALT		Clast minor alteration	This table describes a mineral or mineral assemblage and process that are minor contributors to the observed mineralogy of the subject clast. The content of each mineral required to be considered dominant depends on the mineral; for example, zeolites and clays are considered dominant in concentrations of 20% or greater, calcite is considered dominant at 5% or greater, and kaolinite at 2% or greater. A mineral or mineral assemblage and process that are dominant contributors to the observed mineralogy of the subject clast are described in table ma_clast_alt.
MA_CLAST_MALT	CLAST_ID	Clast ID	This symbol uniqely identifies a clast within a petrographic split.
MA_CLAST_MALT	CLAST_MALT_CODE	Clast minor alteration	This symbol represents a mineral and process that are minor contributors to the observed mineralogy of the subject clast. Alteration is considered minor for a mineral in any concentration less than that which is considered to be part of a dominant assemblage. The content of each mineral required to be considered dominant depends on the mineral; for example, zeolites and clays are considered dominant in concentrations of 20% or greater, calcite is considered dominant at 5% or greater, and kaolinite at 2% or greater. Allowed symbols are defined in table alt_list.
MA_CLAST_MALT	CLAST_QA_CODE	QA level for clast analysis	This value defines the quality of multiple petrographic analyses for the same clast, irrespective of method used in the analysis. The lowest values for QA level indicate the highest quality analyses. Only petrographic analyses with a QA level of 1 should be used except to compare petrographic data obtained by different methods. Allowed values are defined in table qa_list.
MA_CLAST_MALT	SPL_ID	Unique ID for petrographic split	This unique symbol represents a split of a sample for petrographic analysis. A petrographic split represents analysis for one or more component. All petrographic splits are individual thin sections, even if analyses are performed by different analysts on widely separated dates. A left parenthesis [(] designates each split from a single sample, such as BH86N/33(B, a polished thin section for sample BH86N/33. Multiple analyses of the same thin section represent replicate analyses. To represent split analyses, replicate petrographic analyses are ranked; analyses of the same rank are averaged, weighted by the number of point counted. Individual replicate analyses are not stored within the database, but analysts and analytical dates and other information are provided with the analytical data.

TABLE_NAME	*COLUMN_NAME*	*SHORT_DESC*	*LONG_DESC*
MA_GR_COMP		Grain component petrographic analyses	This table provides a variety of information for each grain component that includes its grain ID, unique grain component ID, area in thin section, mineral identity, and identifies any host clasts or minerals. This table also provides the number of points counted for the grain component, whether it is suitable for microprobe analysis, and the number of several different types of microprobe analyses that were performed. The table also identifies the petrographic analyst and date for analysis of the grain component, and the quality level of the analysis.
MA_GR_COMP	GR_COMP_CODE	Grain component code	This symbol defines the grain component analyzed. Grain components include minerals and amorphous materials such as glass. Allowed symbols are defined in table comp_list.
MA_GR_COMP	GR_COMP_AREA	Grain component area	This value is the area in mm2 for the subject grain component, almost always determined by a counting points in reflected light on a calibrated, gridded reticule mounted within the objective lens that is superimposed over the grain component. Except for the smallest grain components, an objective power is selected to provide at least 15 counts.
MA_GR_COMP	WORKER_CODE	Grain analyst	This symbol defines the grain analyst. Allowed symbols, generally the worker's initials, are defined in table worker_list.
MA_GR_COMP	N_PROBE_BAD_REP	Unacceptable quantitative microprobe analyses	This integer value represents the number of unacceptable quantitative microprobe analyses by Wavelength Dispersive Spectroscopy (WDS) for the subject grain component. For each mineral type, unacceptable analyses fail to satisfy one or more of the strict ranges for analytical totals, mineral structural balance, and for monitor elements such as Al in olivine. Unacceptable analyses reside in the database primarily because they document mineral identities and may provide quantitative information useful for some applications.
MA_GR_COMP	N_PROBE_QUAN_REP	Acceptable quantitative microprobe analyses	This integer value represents the number of acceptable quantitative microprobe analyses by Wavelength Dispersive Spectroscopy (WDS) for the subject grain component. For each mineral type, acceptable analyses must satisfy strict ranges for analytical totals, mineral structural balance, and for monitor elements such as Al in olivine.
MA_GR_COMP	N_PROBE_SEMI_QUAN_REP	Semiquantitative EDS analyses	This integer value represents the number of qualitative microprobe analyses by Energy Dispersive Spectroscopy (EDS) for the subject grain component. A display of counts (spectrum) was visually analyzed to assess the mineral identity of the subject grain component; this display was repeated at different points on the subject grain component for the number of times indicated. The counts generated by the EDS analysis are preserved on the original petrographic work sheet but not in the database.

TABLE_NAME	*COLUMN_NAME*	*SHORT_DESC*	*LONG_DESC*
MA_GR_COMP	N_PROBE_QUAL_REP	EDS analyses	This integer value represents the number of qualitative microprobe analyses by Energy Dispersive Spectroscopy (EDS) for the subject grain component. A display of counts (spectrum) was visually analyzed to assess the mineral identity of the subject grain component; this display was repeated at different points on the subject grain component for the number of times indicated. The counts generated by the EDS analysis are not preserved.
MA_GR_COMP	PROBE_SUITABLE	Suitability for probe analysis	This symbol indicates the suitability of the grain component for quantitative analysis by electron microprobe. The suitability is determined by inspection in both transmitted and reflected light at a magnification of at least 400. Allowed symbols are defined in table ans_list.
MA_GR_COMP	CLAST_COMP_PA_METH_CODE	Method for grain component in clast	This symbol defines the method used to determine the concentration of the subject mineral within the subject clast ID. These concentrations are not provided within the database but can be easily determined. Allowed symbols are defined in table pa_meth_list.
MA_GR_COMP	GR_COMP_COUNTS	Points counted for grain component	This value represents the number of points counted for the grain component. Because individual counts are assigned to primary mineral groups (felsics, mafics, etc) for each grain ID, fractional counts result when the subject primary mineral group consists of more than one mineral of the group. Fractional counts are apportioned to individual members of a group (for example, plagioclase and sanidine within a single grain) according to their areas.
MA_GR_COMP	GR_COMP_QA_CODE	QA level for grain component	This value defines the quality of multiple petrographic analyses for the same grain component. The lowest values for QA level indicate the highest quality analyses. Only grain component analyses with a QA level of 1 should be used except to evaluate the accuracy of petrographic analysis. Allowed values are defined in table qa_list.
MA_GR_COMP	WORK_DATE	Date of grain component analysis	All petrographic data for grain component specified was reduced on this date.
MA_GR_COMP	GR_COMP_HOST_CODE	Mineral host for grain component	This symbol identifies a mineral that clearly surrounds the subject grain component on at least 3 sides. The host mineral can be either primary or secondary, but always has the same grain ID. Allowed symbols are defined in table comp_list.

TABLE_NAME	*COLUMN_NAME*	*SHORT_DESC*	*LONG_DESC*
MA_GR_COMP	SPL_ID	Unique ID for petrographic split	This unique symbol represents a split of a sample for petrographic analysis. A petrographic split represents analysis for one or more component. All petrographic splits are individual thin sections, even if analyses are performed by different analysts on widely separated dates. A left parenthesis [(] designates each split from a single sample, such as BH86N/33(B, a polished thin section for sample BH86N/33. Multiple analyses of the same thin section represent replicate analyses. To represent split analyses, replicate petrographic analyses are ranked; analyses of the same rank are averaged, weighted by the number of point counted. Individual replicate analyses are not stored within the database, but analysts and analytical dates and other information are provided with the analytical data.
MA_GR_COMP	CLAST_CODE	Host clast type	This symbol identifies a clast type within a petrographic split that hosts the grain component.
MA_GR_COMP	GR_ID	Grain ID	This symbol identifies a unique grain within a petrographic split. This grain consists of an assemblage of minerals that are intergrown or appear to be so.
MA_GR_COMP	GR_COMP_ID	Grain component ID	This unique integer identifies a single mineral that occurs alone or within an assemblage of minerals that constitute a grain. All distinctly individual grains of apatite and zircon within a single grain are assigned different grain component IDs, but multiple grains of all other minerals that occur within a single grain may be assigned a single or several grain component IDs, dependent on the variety of textures and paragenetic features evident for this set of grains.
MA_GR_COMP	CLAST_ID	Host clast ID	This symbol identifies a uniqe clast within a petrographic split that hosts the grain component.
MA_GR_COMP_TEXTURE		Grain component textures	This table describes textural features observed for each grain component.
MA_GR_COMP_TEXTURE	GR_COMP_CODE	Grain component code	This symbol defines the grain component analyzed. Grain components include minerals and amorphous materials such as glass. Allowed symbols are defined in table comp_list.
MA_GR_COMP_TEXTURE	GR_COMP_QA_CODE	QA level for grain component	This value defines the quality of multiple petrographic analyses for the same grain component. The lowest values for QA level indicate the highest quality analyses. Only grain component analyses with a QA level of 1 should be used except to evaluate the accuracy of petrographic analysis. Allowed values are defined in table qa_list.
MA_GR_COMP_TEXTURE	GR_COMP_TEXTURE	Grain component texture	This symbol describes textural features observed for each grain component. Allowed symbols are defined in table texture_list.

TABLE_NAME	*COLUMN_NAME*	*SHORT_DESC*	*LONG_DESC*
MA_GR_COMP_TEXTURE	GR_COMP_ID	Grain component ID	This unique integer identifies a single mineral that occurs alone or within an assemblage of minerals that constitute a grain. All distinctly individual grains of apatite and zircon within a single grain are assigned different grain component IDs, but multiple grains of all other minerals that occur within a single grain may be assigned a single or several grain component IDs, dependent on the variety of textures and paragenetic features evident for this set of grains.
OXIDE_LIST		Analytes	This table defines the list of chemical analytes as forms that dominate their occurrence within terrestrial rocks, mostly oxides. This table also provides gravimetric factors to convert all oxide values to equivalent elemental values.
OXIDE_LIST	ELEMENT_CODE	Element symbols	This column provides standard chemical symbols for the element of each analyte. All analytes are represented by forms that dominate their occurrence within terrestrial rocks, mostly as oxides.
OXIDE_LIST	ELEMENT_NAME	Elements	This column provides standard chemical names for the element of each analyte. All analytes are represented by forms that dominate their occurrence within terrestrial rocks, mostly as oxides.
OXIDE_LIST	OX_EL_WT_RATIO	Gravimetric factors	This column provides gravimetric factors that represent weight ratios between forms represented by oxide_name, generally oxides that dominate within terrestrial rocks, and the element.
OXIDE_LIST	OXIDE_CODE	Analyte symbols	This column provides standard chemical symbols for each analyte. All analytes are represented by forms that dominate their occurrence within terrestrial rocks, mostly oxides.
OXIDE_LIST	OXIDE_NAME	Analytes	This column provides standard chemical names for each analyte. All analytes are represented by forms that dominate their occurrence within terrestrial rocks, mostly oxides.
PA_COUNT		Points counted for petrographic analysis	This table provides the number of counts for one or more point counts for petrographic analysis, as well as the quality level for each count.
PA_COUNT	COUNT_TYPE_CODE	Type of point count	This symbol defines the type of each point count for petrographic analysis from among several types. Allowed symbols are defined in table pa_meth_list.

TABLE_NAME	*COLUMN_NAME*	*SHORT_DESC*	*LONG_DESC*
PA_COUNT	SPLIT_QA_CODE	QA level for point count	This value defines the quality of multiple petrographic analyses for the same component, irrespective of method used in the analysis. The lowest values for QA level indicate the highest quality analyses. Only petrographic analyses with a QA level of 1 should be used except to compare petrographic data obtained by different methods. Allowed values are defined in table qa_list.
PA_COUNT	COUNT	Points counted for petrographic analysis	This value is the number of counts for each of one or more point counts for petrographic analysis.
PA_COUNT	SPL_ID	Unique ID for petrographic split	This unique symbol represents a split of a sample for petrographic analysis. A split represents petrographic analysis for one or more component. All petrographic splits are individual thin sections, even if analyses are performed by different analysts on widely separated dates. A left parenthesis [(] designates each split from a single sample, such as BH86N/33(B, a polished thin section for sample BH86N/33. Multiple analyses of the same thin section represent replicate analyses. To represent split analyses, replicate petrographic analyses are ranked; analyses of the same rank are averaged, weighted by the number of point counted. Individual replicate analyses are not stored within the database, but analysts and analytical dates and other information are provided with the analytical data.
PA_MEAS_TYPE_LIST		Miscellaneous petrographic information	This table defines symbols that provide information ocassionally obtained for petrographic analyses, mostly from analysis of grain mounts or mineral separates.
PA_MEAS_TYPE_LIST	PA_MEAS_TYPE_NAME	Miscellaneous petrographic information	This column provides information ocassionally obtained for petrographic analyses, mostly from analysis of grain mounts or mineral separates.
PA_MEAS_TYPE_LIST	PA_MEAS_TYPE_CODE	Symbol for miscellaneous petrographic information	This column defines symbols that provide information ocassionally obtained for petrographic analyses, mostly from analysis of grain mounts or mineral separates.
PA_MEASURE		Petrographic analyses	This table provides a petrographic analysis for each component, describes its alteration if the component is a mineral, the method used for its analysis, a citation for the source of the analysis, and the quality level of the analysis.
PA_MEASURE	COMP_ALT_CODE	Component alteration	This symbol describes the general alteration of a mineral component. Alterations for individual grain components of the subject mineral are provided in table ma_gr_comp_texture. Allowed symbols are defined in table comp_alt_list.

TABLE_NAME	*COLUMN_NAME*	*SHORT_DESC*	*LONG_DESC*
PA_MEASURE	REF_CODE	Citation for petrographic data	This symbol provides source of petrographic data. Allowed symbols are defined in table ref_list.
PA_MEASURE	SPLIT_QA_CODE	QA level for petrographic analysis	This value defines the quality of multiple petrographic analyses for the same component, irrespective of method used in the analysis. The lowest values for QA level indicate the highest quality analyses. Only petrographic analyses with a QA level of 1 should be used except to compare petrographic data obtained by different methods. Allowed values are defined in table qa_list.
PA_MEASURE	PA_METH_CODE	Symbol for petrographic method	This symbol defines the method used for petrographic analysis. Allowed symbols are defined in table pa_meth_list.
PA_MEASURE	COMP_VALUE	Component concentration	This value provides the measured concentration of the subject component on a volume basis.
PA_MEASURE	SPL_ID	Unique ID for petrographic split	This unique symbol represents a split of a sample for petrographic analysis. A petrographic split represents analysis for one or more component. All petrographic splits are individual thin sections, even if analyses are performed by different analysts on widely separated dates. A left parenthesis [(] designates each split from a single sample, such as BH86N/33(B, a polished thin section for sample BH86N/33. Multiple analyses of the same thin section represent replicate analyses. To represent split analyses, replicate petrographic analyses are ranked; analyses of the same rank are averaged, weighted by the number of point counted. Individual replicate analyses are not stored within the database, but analysts and analytical dates and other information are provided with the analytical data.
PA_MEASURE	UNITS_CODE	Component concentration units	This symbol defines the concentration units associated with petrographic analysis. Concentration units are always provided on a volume basis for quantitative petrographic analyses. Allowed symbols are defined in table units_list. The same concentration units are consistently used for each component.
PA_MEASURE	COMP_CODE	Component code	This symbol defines the component analyzed. Components include minerals, specified materials such as brown glass, and assemblages such as lithics. Allowed symbols are defined in table comp_list.
PA_METH_LIST		Petrographic method	This table defines symbols that represent methods used for petrographic analysis.

TABLE_NAME	*COLUMN_NAME*	*SHORT_DESC*	*LONG_DESC*
PA_METH_LIST	PA_METH_DESC	Decription of petrographic method	This column describes methods used for petrographic analysis.
PA_METH_LIST	PA_METH_CODE	Symbol for petrographic method	This column defines symbols that represent methods used for petrographic analysis.
PA_METH_LIST	PA_METH_NAME	Petrographic method	This column names methods used for petrographic analysis.
PA_MISC		Miscellaneous petrographic information	This table provides information ocassionally obtained for petrographic analyses, mostly from analysis of grain mounts or mineral separates. Information allowed in this table is defined in table pa_meas_type_list.
PA_MISC	SPL_ID	Unique ID for petrographic split	This unique symbol represents a split of a sample for petrographic analysis. A split represents petrographic analysis for one or more component. All petrographic splits are individual thin sections, even if analyses are performed by different analysts on widely separated dates. A left parenthesis [(] designates each split from a single sample, such as BH86N/33(B, a polished thin section for sample BH86N/33. Multiple analyses of the same thin section represent replicate analyses. To represent split analyses, replicate petrographic analyses are ranked; analyses of the same rank are averaged, weighted by the number of point counted. Individual replicate analyses are not stored within the database, but analysts and analytical dates and other information are provided with the analytical data.
PA_MISC	PA_MEAS_TYPE_CODE	Symbol for miscellaneous petrographic information	This symbol provides information ocassionally obtained for petrographic analyses, mostly from analysis of grain mounts or mineral separates. Allowed symbols are defined in table pa_meas_type_list.
PA_MISC	PA_MEAS_VALUE	Miscellaneous petrographic information	This value provides information ocassionally obtained for petrographic analyses, mostly from analysis of grain mounts or mineral separates.
PA_MISC	SPLIT_QA_CODE	QA level for petrographic analysis	This value defines the quality of multiple petrographic analyses for the same component, irrespective of method used in the analysis. The lowest values for QA level indicate the highest quality analyses. Only petrographic analyses with a QA level of 1 should be used except to compare petrographic data obtained by different methods. Allowed values are defined in table qa_list.

TABLE_NAME	*COLUMN_NAME*	*SHORT_DESC*	*LONG_DESC*
PA_SPLIT		General petrographic information	This table provides general information usually obtained for most petrographic analyses, including the type and area of the thin section and method used to determine the area, the magnification and light sources used in the point count, and quality level for the analysis. If the thin section split represents a mineral separate, this table provides the type of mineral separated and method used for the separation.
PA_SPLIT	LIGHT_TYPE_CODE	Point count light source	This symbol provides the least effective light source used for any petrographic analyses by point count. The most effective light source is a point count performed in reflected light but with transmitted light available to aid identifications. Allowed symbols are defined in table light_type_list.
PA_SPLIT	MAGNIF	Point count magnification	This value provides the lowest magnification used for any petrographic analyses by point count. The highest magnifications provide the most accurate analyses.
PA_SPLIT	COMMENTS	Comments from petrographic analysis	Comments amplify information from a petrographic analysis and provide additional information not otherwise represented in the database.
PA_SPLIT	SPLIT_QA_CODE	QA level for petrographic analysis	This value defines the quality of multiple petrographic analyses for the same component, irrespective of method used in the analysis. The lowest values for QA level indicate the highest quality analyses. Only petrographic analyses with a QA level of 1 should be used except to compare petrographic data obtained by different methods. Allowed values are defined in table qa_list.
PA_SPLIT	SEP_METH_CODE	Method for mineral separation	This symbol describes the method used to prepare a split of a mineral separate. Allowed symbols are defined in table sep_meth_list.
PA_SPLIT	MIN_SEP	Symbol for separated mineral	This symbol identifies the primary or target mineral of a split of a mineral separate. Allowed symbols are defined in table comp_list.
PA_SPLIT	SAM_ID	Unique ID for sample	This unique symbol represents up to a few kg of contiguous material from the surface or subsurface. The dash special character (-) designates multiple samples from a single location, and a left parenthesis [(] designates multiple splits from a single sample. Samples from vertical drill holes will always have sam_id's represented by the location, which is the drill hole name, followed by a dash (-) and the sample depth in feet, for example, USWG2-770. Sample depths in meters attach "M" following the metric depth, for example, USWG2-506.65M. Multiple samples from the same location, for example a whole-rock sample and several lithic and pumice separates, will always have sam_id's represented by the location followed followed by a dash (-) and a character string, for example RW18B3-WR, RW18B3-PU1, and RW18B3-PU2.

TABLE_NAME	*COLUMN_NAME*	*SHORT_DESC*	*LONG_DESC*
PA_SPLIT	SPLIT_TYPE_CODE	Analysis type for sample split	This symbol identifies the type of sample split analyzed. Almost all petrographic analyses employ a glass-covered or a polished thin section. Allowed symbols are defined in table split_type_list.
PA_SPLIT	TS_AREA	Thin section area	This value provides the thin section area in mm2. The method used to determine this area is provided by ts_area_meth_code.
PA_SPLIT	TS_AREA_METH_CODE	Thin section area method	This symbol provides the method used to determine the thin section area. Allowed symbols are defined in table pa_meth_list.
PA_SPLIT	SPL_ID	Unique ID for petrographic split	This unique symbol represents a split of a sample for petrographic analysis. A split represents petrographic analysis for one or more component. All petrographic splits are individual thin sections, even if analyses are performed by different analysts on widely separated dates. A left parenthesis [(] designates each split from a single sample, such as BH86N/33(B, a polished thin section for sample BH86N/33. Multiple analyses of the same thin section represent replicate analyses. To represent split analyses, replicate petrographic analyses are ranked; analyses of the same rank are averaged, weighted by the number of point counted. Individual replicate analyses are not stored within the database, but analysts and analytical dates and other information are provided with the analytical data.
PA_WORKER		Petrographic analyst	This table identifies the analyst, analysis date, and quality level for each component.
PA_WORKER	COMP_CODE	Component code	This symbol defines the component analyzed. Components include minerals, specified materials such as brown glass, and assemblages such as lithics. Allowed symbols are defined in table comp_list.
PA_WORKER	WORKER_CODE	Petrographic analyst	This symbol defines the petrographic analyst. Allowed symbols, generally the worker's initials, are defined in table worker_list.
PA_WORKER	SPLIT_QA_CODE	QA level for petrographic analysis	This value defines the quality of multiple petrographic analyses for the same component, irrespective of method used in the analysis. The lowest values for QA level indicate the highest quality analyses. Only petrographic analyses with a QA level of 1 should be used except to compare petrographic data obtained by different methods. Allowed values are defined in table qa_list.
PA_WORKER	WORK_DATE	Date of petrographic analysis	All petrographic data by worker indicated was reduced on this date.

TABLE_NAME	*COLUMN_NAME*	*SHORT_DESC*	*LONG_DESC*
PA_WORKER	UNITS_CODE	Component concentration units	This symbol defines the concentration units associated with petrographic analysis. Concentration units are always provided on a volume basis for quantitative petrographic analyses. Allowed symbols are defined in table units_list. The same concentration units are consistently used for each component, but both quantitative and qualitative (grain count) petrographic analyses may be provided for some accessory minerals.
PA_WORKER	SPL_ID	Unique ID for petrographic split	This unique symbol represents a split of a sample for petrographic analysis. A petrographic split represents analysis for one or more component. All petrographic splits are individual thin sections, even if analyses are performed by different analysts on widely separated dates. A left parenthesis [(] designates each split from a single sample, such as BH86N/33(B, a polished thin section for sample BH86N/33. Multiple analyses of the same thin section represent replicate analyses. To represent split analyses, replicate petrographic analyses are ranked; analyses of the same rank are averaged, weighted by the number of point counted. Individual replicate analyses are not stored within the database, but analysts and analytical dates and other information are provided with the analytical data.
PHYSAE_LIST		Lithophysal zones	This table defines symbols that describe the general development of lithophysal zones within rock.
PHYSAE_LIST	PHYSAE_NAME	Lithophysal zones	This column describes the general development of lithophysal zones within rock.
PHYSAE_LIST	PHYSAE_CODE	Lithophysal zones	This column defines symbols that describe the general development of lithophysal zones within rock.
PROBE_END_MEMBERS		Mineral end members	This table provides end member contents for selected minerals. These values have been calculated from analyte concentrations determined by microprobe analysis.
PROBE_END_MEMBERS	REP_ID	Microprobe replicate ID	This character string uniquely identifies each microprobe analytical point for a particular grain component.
PROBE_END_MEMBERS	GR_COMP_ID	Grain component ID	This unique integer identifies a single mineral that occurs alone or within an assemblage of minerals that constitute a grain. All distinctly individual grains of apatite and zircon within a single grain are assigned different grain component IDs, but multiple grains of all other minerals that occur within a single grain may be assigned a single or several grain component IDs, dependent on the variety of textures and paragenetic features evident for this set of grains.

TABLE_NAME	*COLUMN_NAME*	*SHORT_DESC*	*LONG_DESC*
PROBE_END_MEMBERS	END_MEMBER_VALUE	Value for mineral end member	This column provides end member contents for selected minerals. These values have been calculated from analyte concentrations determined by microprobe analysis.
PROBE_END_MEMBERS	END_MEMBER_CODE	Symbol for mineral end member	This column provides symbols for end members of selected minerals.
PROBE_LOC_LIST		Microprobe analysis location	This table defines symbols that describe the general location for each microprobe analytical point within a particular grain component.
PROBE_LOC_LIST	PROBE_LOC_CODE	Microprobe analysis location	This column defines symbols that describe the general location for each microprobe analytical point within a particular grain component.
PROBE_LOC_LIST	PROBE_LOC_NAME	Microprobe analysis location	This column describes the general location for each microprobe analytical point within a particular grain component.
PROBE_MEASURE		Microprobe analyses	This table provides microprobe analyses in weight percent.
PROBE_MEASURE	REP_ID	Microprobe replicate ID	This character string uniquely identifies each microprobe analytical point for a particular grain component.
PROBE_MEASURE	GR_COMP_ID	Grain component ID	This unique integer identifies a single mineral that occurs alone or within an assemblage of minerals that constitute a grain. All distinctly individual grains of apatite and zircon within a single grain are assigned different grain component IDs, but multiple grains of all other minerals that occur within a single grain may be assigned a single or several grain component IDs, dependent on the variety of textures and paragenetic features evident for this set of grains.
PROBE_MEASURE	STANDARD_SET_CODE	Microprobe standard set	This symbol identifies the set of microprobe standards used to provide reference intensities for each analyte in the analysis, as well as the spectrometer used for that analyte. Allowed symbols are defined in table probe_standard_set_list.
PROBE_MEASURE	OXIDE_VALUE	Microprobe analysis	This value provides microprobe analyses in weight percent.
PROBE_MEASURE	OXIDE_CODE	Microprobe analyte	This symbol provides standard chemical symbol for analyte. All analytes are represented by forms that dominate their occurrence within terrestrial rocks, mostly as oxides. Allowed analytes are defined in table oxide_list, which also provides gravimetric factors to convert all oxide values to equivalent elemental values.

TABLE_NAME	*COLUMN_NAME*	*SHORT_DESC*	*LONG_DESC*
PROBE_REP		Microprobe analysis description	This table provides quality measures for each analysis by electron microprobe and also describes the location of the analytical point relative to the boundaries of the grain component analyzed.
PROBE_REP	REP_ID	Microprobe replicate ID	This character string uniquely identifies each microprobe analytical point for a particular grain component.
PROBE_REP	PROBE_LOC_CODE	Microprobe analysis location	This symbol describes the general location for each microprobe analytical point within a particular grain component. Allowed symbols are defined in table probe_loc_list.
PROBE_REP	REF_CODE	Citation for microprobe data	This symbol provides source of microprobe data. Allowed symbols are defined in table ref_list.
PROBE_REP	WORKER_CODE	Microprobe analyst	This symbol defines the microprobe analyst. Allowed symbols, generally the worker's initials, are defined in table worker_list.
PROBE_REP	COMMENTS	Comments from microprobe analysis	Comments amplify information from a microprobe analysis and provide additional information not otherwise represented in the database.
PROBE_REP	WORK_DATE	Date of microprobe analysis	Microprobe analysis for this replicate was performed on this date.
PROBE_REP	WORK_TYPE_CODE	Type of microprobe analysis	This symbol identifies the type of microprobe analysis, which include qualitative, semiquantitative, and quantitative. Allowed symbols are defined in table topic_list.
PROBE_REP	PROBE_QA_CODE	QA level for microprobe analysis	This value defines the quality of each replicate microprobe analysis. The lowest values for QA level indicate the highest quality analyses. Only microprobe analyses with a QA level of 1 should be used except to evaluate the accuracy of petrographic analysis. Allowed values are defined in table qa_list.
PROBE_REP	GR_COMP_ID	Grain component ID	This unique integer identifies a single mineral that occurs alone or within an assemblage of minerals that constitute a grain. All distinctly individual grains of apatite and zircon within a single grain are assigned different grain component IDs, but multiple grains of all other minerals that occur within a single grain may be assigned a single or several grain component IDs, dependent on the variety of textures and paragenetic features evident for this set of grains.
PROBE_SPEC_LIST		Analyte spectrometer	This table defines symbols that describe the spectrometer used for microprobe analysis of a particular analyte.

TABLE_NAME	*COLUMN_NAME*	*SHORT_DESC*	*LONG_DESC*
PROBE_SPEC_LIST	PROBE_SPEC_CODE	Analyte spectrometer	This column defines symbols that describe the spectrometer used for microprobe analysis of a particular analyte.
PROBE_SPEC_LIST	PROBE_SPEC_NAME	code	Analyte spectrometer[This column describes the spectrometer used for microprobe analysis of a particular analyte.
PROBE_STANDARD_SET_LIST		Microprobe standard set	This table defines symbols that identify the set of microprobe standards used to provide reference intensities for each analyte in the analysis, as well as the spectrometer used for that analyte.
PROBE_STANDARD_SET_LIST	STANDARD_SET_CODE	Microprobe standard set	This column defines symbols that identify the set of microprobe standards used to provide reference intensities for each analyte in the analysis, as well as the spectrometer used for that analyte.
PROBE_STANDARD_SET_LIST	STANDARD_ID	Microprobe standard ID	This column provides symbols uniformly used for the standard in the microprobe laboratory. Almost all analyses were obtained in the microprobe laboratory of EES-1, Los Alamos National Laboratory, with the assistance of Ronald Gooley, Roland C. Hagen, and Margaret G. (Peggy) Snow. Allowed symbols for probe standard IDs are defined in table standard_list, which also identifies and describes each standard.
PROBE_STANDARD_SET_LIST	PROBE_SPEC_CODE	Analyte spectrometer	This column provides the spectrometer used for the subject analyte within the subject microprobe standard set. Allowed symbols are defined in table probe_spec_list.
PROBE_STANDARD_SET_LIST	OXIDE_CODE	Microprobe standard analyte	This column provides symbols for analytes that constitute the subject microprobe standard set. Allowed symbols are defined in table oxide_list.
QA_LIST		QA level for petrographic analysis	This table defines values that represent the quality of multiple petrographic analyses for the same component, irrespective of method used in the analysis. The lowest values for QA level indicate the highest quality analyses. Only petrographic analyses with a QA level of 1 should be used except to compare petrographic data obtained by different methods.
QA_LIST	QA_NAME	QA level for petrographic analysis	This column descibes the quality of multiple petrographic analyses for the same component, irrespective of method used in the analysis. The lowest values for QA level indicate the highest quality analyses. Only petrographic analyses with a QA level of 1 should be used except to compare petrographic data obtained by different methods.

TABLE_NAME	*COLUMN_NAME*	*SHORT_DESC*	*LONG_DESC*
QA_LIST	QA_CODE	QA level for petrographic analysis	This column defines values that represent the quality of multiple petrographic analyses for the same component, irrespective of method used in the analysis. The lowest values for QA level indicate the highest quality analyses. Only petrographic analyses with a QA level of 1 should be used except to compare petrographic data obtained by different methods.
QUAD_LIST		USGS quad	This table defines symbols for U.S. Geological Survey topographic quadrangles for locations in the database.
QUAD_LIST	QUAD_CODE	USGS quad symbol	This column provides symbols that define U.S. Geological Survey topographic quadrangles for locations in the database.
QUAD_LIST	QUAD_NAME	USGS quad	This column lists U.S. Geological Survey topographic quadrangles for locations in the database.
REF_LIST		Citations	This table defines symbols for full citations of data and methods reported in the database.
REF_LIST	REF_NAME	Citations	This column provides full citations for data and methods.
REF_LIST	REF_CODE	Symbol for citation	This column provides symbols for citations of data and methods.
REF_STRAT_CODE_REF		Citations for symbols of reference stratigraphic symbols	This table defines symbols for citations that provide previously used symbols for reference stratigraphic units.
REF_STRAT_CODE_REF	STRAT_CODE	Stratigraphic unit	This column defines symbols that represent stratigraphic units of the southwestern Nevada volcanic field.
REF_STRAT_CODE_REF	REF_STRAT_CODE_REF_CODE	Citation for symbols of reference stratigraphic symbol	This column provides symbols for citations of symbols previously used for reference stratigraphic units.
REF_STRAT_NAME_REF		Citations for names of reference stratigraphic units	This table defines symbols for citations that provide previously used names for reference stratigraphic units.
REF_STRAT_NAME_REF	REF_STRAT_NAME_REF_CODE	Citations for reference stratigraphic name	This column provides symbols for citations for names previously used for reference stratigraphic units.
REF_STRAT_NAME_REF	STRAT_CODE	Stratigraphic unit	This column defines symbols that represent stratigraphic units of the southwestern Nevada volcanic field.

TABLE_NAME	*COLUMN_NAME*	*SHORT_DESC*	*LONG_DESC*
SAM_DESC_TYPE_LIST		Type of sample description	This table defines symbols that identify a sample description as either field or binocular microscope description.
SAM_DESC_TYPE_LIST	SAM_DESC_TYPE_CODE	Type of sample description	This column provides symbols that identify a sample description as either field or binocular microscope description.
SAM_DESC_TYPE_LIST	SAM_DESC_TYPE_NAME	Type of sample description	This column identifies a sample description as either field or binocular microscope description.
SAM_TYPE_LIST		Sample type	This table defines symbols for the types of samples collected from the southwestern Nevada volcanic field, and defines groups of sample types.
SAM_TYPE_LIST	SAM_TYPE_NAME	Sample type	This column defines the type of samples collected from the southwestern Nevada volcanic field.
SAM_TYPE_LIST	SAM_TYPE_GROUP_CODE	Sample type group symbol	This column provides symbols that define general sample types, which include whole rock versus separated components (minerals, pumice, etc.), outcrop versus subsurface, representative versus nonrepresentative. Nonrepresentative samples are generally those that have been modified by the process of drilling a well.
SAM_TYPE_LIST	SAM_TYPE_CODE	Sample type symbol	This column provides symbols that define the type of sample. Sample types are grouped into general sample types in sam_type_group_code.
SAMPLE		Sample characteristics	This table provides important physical, relational, and other characteristics of the sample. Physical characteristics are sample type and lithology. Relational characteristics are stratigraphic assignment, stratigraphic assignments for bounding units, and depths (if appropriate) and elevations for the sample and its bounding unit. This table also provides the date of sample collection.
SAMPLE	SAM_ID	Unique ID for sample	This unique symbol represents up to a few kg of contiguous material from the surface or subsurface. The dash special character (-) designates multiple samples from a single location, and a left parenthesis [(] designates multiple splits from a single sample. Samples from vertical drill holes will always have sam_id's represented by the location, which is the drill hole name, followed by a dash (-) and the sample depth in feet, for example, USWG2-770. Sample depths in meters attach "M" following the metric depth, for example, USWG2-506.65M. Multiple samples from the same location, for example a whole-rock sample and several lithic and pumice separates, will always have sam_id's represented by the location followed followed by a dash (-) and a character string, for example RW18B3-WR, RW18B3-PU1, and RW18B3-PU2.

TABLE_NAME	*COLUMN_NAME*	*SHORT_DESC*	*LONG_DESC*
SAMPLE	LOC_ID	Unique ID for specific location on surface	This unique symbol represents a specific, usually unique location on the surface, or a specific, usually unique location within a tunnel. The dash character (-) is reserved for sample IDs and therefore dashes in published locations are converted to a foreslash (/). Thus 11/102/7A is the loc_id for a sample identified by its collector as 11-102-7-A.
SAMPLE	STRAT_CODE	Stratigraphic unit symbol	This symbol represents the assigned stratigraphic unit of the southwestern Nevada volcanic field. Allowed symbols are defined in table strat.
SAMPLE	SAM_TYPE_CODE	Sample type	This symbol defines the type of sample. General sample types are whole rock versus separated components (minerals, pumice, etc.), outcrop versus subsurface, representative versus nonrepresentative. Nonrepresentative samples are generally those that have been modified by the process of drilling a well. Allowed symbols are defined in table sam_type_list.
SAMPLE	LITH_CODE	Lithology symbol	This symbol describes the lithology of sample. Allowed symbols are defined in table lith_list.
SAMPLE	SAM_DEPTH_U	Upper bound for sample depth	This value provides the uppermost bound on the sample depth in meters beneath the surface. This value is applicable only to samples from vertical drill holes, trenches, or pits.
SAMPLE	SAM_DEPTH_L	Lower bound for sample depth	This value provides the lowermost bound on the sample depth in meters beneath the surface. This value is applicable only to samples from vertical drill holes, trenches, or pits.
SAMPLE	SAM_ELEV_U	Upper bound for sample elevation	This value provides the uppermost bound on the sample in meters above mean sea level.
SAMPLE	SAM_ELEV_L	Lower bound for sample elevation	This value provides the lowermost bound on the sample in meters above mean sea level.
SAMPLE	SAM_ELEV_AV	Sample elevation	This value provides the sample elevation in meters above mean sea level, or the average from uppermost and lowermost bounds, if available.
SAMPLE	SAM_ELEV_UNC	Uncertainty in sample elevation	This value provides the uncertainty in meters for sample elevation, or half the difference between uppermost and lowermost bounds, if available.
SAMPLE	SAMPLE_DATE	Sample collection date	The sample was collected on this date.
SAMPLE	STRAT_T_ELEV	Elevation for top of stratigraphic unit	This value represents the elevation in meters for top of stratigraphic unit.

TABLE_NAME	*COLUMN_NAME*	*SHORT_DESC*	*LONG_DESC*
SAMPLE	STRAT_ABOVE_CODE	Stratigraphic unit above sample	This symbol identifies the stratigraphic unit above unit sampled. Allowed symbols are defined in table strat.
SAMPLE	STRAT_B_ELEV	Elevation for base of stratigraphic unit	This value represents the elevation in meters for base of stratigraphic unit.
SAMPLE	STRAT_BELOW_CODE	Stratigraphic unit below sample	This symbol identifies the stratigraphic unit below unit sampled. Allowed symbols are defined in table strat.
SAMPLE_ALT		Alteration of sample	This table describes the alteration of each sample. Alteration reflects both the bulk mineralogy of a sample and the dominant process that yielded the observed mineral assemblage.
SAMPLE_ALT	SAM_ID	Unique ID for sample	Unique symbol that represents up to a few kg of contiguous material from the surface or subsurface. The dash special character (-) designates multiple samples from a single location, and a left parenthesis [(] designates multiple splits from a single sample. Samples from vertical drill holes will always have sam_id's represented by the location, which is the drill hole name, followed by a dash (-) and the sample depth in feet, for example, USWG2-770. Sample depths in meters attach "M" following the metric depth, for example, USWG2-506.65M. Multiple samples from the same location, for example a whole-rock sample and several lithic and pumice separates, will always have sam_id's represented by the location followed followed by a dash (-) and a character string, for example RW18B3-WR, RW18B3-PU1, and RW18B3-PU2.
SAMPLE_ALT	ALT_CODE	Symbol for ample alteration	This symbol represents a mineral or mineral assemblage and process that are dominant contributors to the observed mineralogy. The content of each mineral required to be considered dominant depends on the mineral; for example, zeolites and clays are considered dominant in concentrations of 20% or greater, calcite is considered dominant at 5% or greater, and kaolinite at 2% or greater. Allowed symbols are defined in table alt_list.
SAMPLE_AVAIL		Sample availability	This table provides storage locations and amounts available for original samples, prepared specialized splits of these samples, and original, unabridged field notes.

TABLE_NAME	*COLUMN_NAME*	*SHORT_DESC*	*LONG_DESC*
SAMPLE_AVAIL	SAM_ID	Unique ID for sample	This unique symbol represents up to a few kg of contiguous material from the surface or subsurface. The dash special character (-) designates multiple samples from a single location, and a left parenthesis [(] designates multiple splits from a single sample. Samples from vertical drill holes will always have sam_id's represented by the location, which is the drill hole name, followed by a dash (-) and the sample depth in feet, for example, USWG2-770. Sample depths in meters attach "M" following the metric depth, for example, USWG2-506.65M. Multiple samples from the same location, for example a whole-rock sample and several lithic and pumice separates, will always have sam_id's represented by the location followed followed by a dash (-) and a character string, for example RW18B3-WR, RW18B3-PU1, and RW18B3-PU2.
SAMPLE_AVAIL	XRD_PWT	Weight of XRD powder	This value is the weight in g of powder prepared for X-ray diffraction analysis by internal standard method. This powder contains added amounts of mineral added for reference, usually corundum.
SAMPLE_AVAIL	COARSE_PWT	Weight of coarsely crushed sample	This value is the weight in g of coarsely crushed sample.
SAMPLE_AVAIL	STOR_WT	Weight of stored sample	This value is the weight in g that remains of unprepared, stored sample.
SAMPLE_AVAIL	STOR_LOC	Storage location	This symbol marks the storage bin where sample is located at building TA-3, SM-40, Los Alamos National Laboratory, Los Alamos, NM, USA.
SAMPLE_AVAIL	FINE_PWT	Weight of finely pulverized sample	This value is the weight in g of finely pulverized sample, suitable for most types of chemical analysis. Most samples have been pulverized via shatterbox.
SAMPLE_AVAIL	NUM_TS	Number of glass-covered thin sections	This value represents the number of glass-covered thin sections stored.
SAMPLE_AVAIL	NUM_TSB	Number of thin section butts	This value represents the number of thin section butts stored.
SAMPLE_AVAIL	FIELD_NOTE_INFO	Availability of field notes	This symbol defines the availability of original, unabridged field notes. Allowed symbols are defined in table avail_list.
SAMPLE_AVAIL	NUM_FD	Number of XRF disks	This value represents the number of fused disks for X-ray fluorescence analysis stored.

TABLE_NAME	*COLUMN_NAME*	*SHORT_DESC*	*LONG_DESC*
SAMPLE_AVAIL	NUM_US	Number of unpolished, uncovered thin sections	This value represents the number of unpolished, uncovered thin sections stored.
SAMPLE_AVAIL	NUM_PS	Number of polished thin sections	This value represents the number of polished thin sections stored.
SAMPLE_COLOR		Sample colors	This table describes colors for components recognized in the binocular microscope description of each sample.
SAMPLE_COLOR	SAM_ID	Unique ID for sample	This unique symbol represents up to a few kg of contiguous material from the surface or subsurface. The dash special character (-) designates multiple samples from a single location, and a left parenthesis [(] designates multiple splits from a single sample. Samples from vertical drill holes will always have sam_id's represented by the location, which is the drill hole name, followed by a dash (-) and the sample depth in feet, for example, USWG2-770. Sample depths in meters attach "M" following the metric depth, for example, USWG2-506.65M. Multiple samples from the same location, for example a whole-rock sample and several lithic and pumice separates, will always have sam_id's represented by the location followed followed by a dash (-) and a character string, for example RW18B3-WR, RW18B3-PU1, and RW18B3-PU2.
SAMPLE_COLOR	COLOR_TYPE	Color type	This symbol defines the nature of the sample described. Allowed symbols are W for wet and D for dry.
SAMPLE_COLOR	COMP_CODE	Component code	This symbol defines the component described. Allowed symbols are defined in table comp_list.
SAMPLE_COLOR	COMP_RANK	Component rank	This integer value defines the prominence of each component. Lower values indicate higher prominence.
SAMPLE_COLOR	CHROMA	Component chroma	This symbol provides the chroma of the component described. Chromas are those defined by the widely-used rock color chart published by the Geological Society of America.
SAMPLE_COLOR	LIGHTNESS	Component lightness	This symbol provides the lightness of the component described. Lightnesses are those defined by the widely-used rock color chart published by the Geological Society of America.
SAMPLE_COLOR	HUE_CODE	Component hue code	This symbol provides the hue of the component described. Hues are those defined by the widely-used rock color chart published by the Geological Society of America.

TABLE_NAME	*COLUMN_NAME*	*SHORT_DESC*	*LONG_DESC*
SAMPLE_DESC		Sample descriptions	This table provides original field and later binocular microscope descriptions for each sample.
SAMPLE_DESC	SAM_ID	Unique ID for sample	This unique symbol represents up to a few kg of contiguous material from the surface or subsurface. The dash special character (-) designates multiple samples from a single location, and a left parenthesis [(] designates multiple splits from a single sample. Samples from vertical drill holes will always have sam_id's represented by the location, which is the drill hole name, followed by a dash (-) and the sample depth in feet, for example, USWG2-770. Sample depths in meters attach "M" following the metric depth, for example, USWG2-506.65M. Multiple samples from the same location, for example a whole-rock sample and several lithic and pumice separates, will always have sam_id's represented by the location followed followed by a dash (-) and a character string, for example RW18B3-WR, RW18B3-PU1, and RW18B3-PU2.
SAMPLE_DESC	SAM_DESC_TYPE_CODE	Type of sample description	This symbol defines a sample description as either field or binocular microscope description. Allowed symbols are defined in sam_desc_type_list.
SAMPLE_DESC	SAM_DESCRIBER	Sample describer	Symbol that defines the worker responsible for sample description. Allowed symbols, generally the worker's initials, are defined in table worker_list.
SAMPLE_DESC	SAM_DESC_DATE	Date of sample description	Date when sample description was made.
SAMPLE_DESC	SAM_DESC	Sample description symbol	Sample description. Original sample descriptions are almost always abridged for clarity, conciseness, and correctness. The availability of original descriptions is provided in table sample_avail.
SAMPLE_MALT		Minor alteration of sample	This table describes the minor alteration of each sample. Alteration is considered minor for a mineral in any concentration less than that which is considered to be part of a dominant assemblage.
SAMPLE_MALT	SAM_ID	Unique ID for sample	This unique symbol represents up to a few kg of contiguous material from the surface or subsurface. The dash special character (-) designates multiple samples from a single location, and a left parenthesis [(] designates multiple splits from a single sample. Samples from vertical drill holes will always have sam_id's represented by the location, which is the drill hole name, followed by a dash (-) and the sample depth in feet, for example, USWG2-770. Sample depths in meters attach "M" following the metric depth, for example, USWG2-506.65M. Multiple samples from the same location, for example a whole-rock sample and several lithic and pumice separates, will always have sam_id's represented by the location followed followed by a dash (-) and a character string, for example RW18B3-WR, RW18B3-PU1, and RW18B3-PU2.

TABLE_NAME	*COLUMN_NAME*	*SHORT_DESC*	*LONG_DESC*
SAMPLE_MALT	MALT_CODE	Sample minor alteration	This symbol represents a mineral and process that are minor contributors to the observed mineralogy. Alteration is considered minor for a mineral in any concentration less than that which is considered to be part of a dominant assemblage. The content of each mineral required to be considered dominant depends on the mineral; for example, zeolites and clays are considered dominant in concentrations of 20% or greater, calcite is considered dominant at 5% or greater, and kaolinite at 2% or greater. Allowed symbols are defined in table alt_list.
SAMPLE_REF		Citations for sample characteristics	This table provides citations for sources of information that describe the physical and relational character of each sample.
SAMPLE_REF	SAM_ID	Unique ID for sample	This unique symbol that represents up to a few kg of contiguous material from the surface or subsurface. The dash special character (-) designates multiple samples from a single location, and a left parenthesis [(] designates multiple splits from a single sample. Samples from vertical drill holes will always have sam_id's represented by the location, which is the drill hole name, followed by a dash (-) and the sample depth in feet, for example, USWG2-770. Sample depths in meters attach "M" following the metric depth, for example, USWG2-506.65M. Multiple samples from the same location, for example a whole-rock sample and several lithic and pumice separates, will always have sam_id's represented by the location followed followed by a dash (-) and a character string, for example RW18B3-WR, RW18B3-PU1, and RW18B3-PU2.
SAMPLE_REF	REF_TYPE_CODE	Topic for sample data referenced	This symbol identifies topic for sample data referenced. Allowed symbols are defined in table topic_list.
SAMPLE_REF	REF_CODE	Citation for sample topic	This symbol provides source of data specified by topic. Allowed symbols are defined in table ref_list.
SAMPLE_WORKER		Sample workers	This table identifies those who have described the physical and relational characteristics of samples.
SAMPLE_WORKER	SAM_ID	Unique ID for sample	This unique symbol represents up to a few kg of contiguous material from the surface or subsurface. The dash special character (-) designates multiple samples from a single location, and a left parenthesis [(] designates multiple splits from a single sample. Samples from vertical drill holes will always have sam_id's represented by the location, which is the drill hole name, followed by a dash (-) and the sample depth in feet, for example, USWG2-770. Sample depths in meters attach "M" following the metric depth, for example, USWG2-506.65M. Multiple samples from the same location, for example a whole-rock sample and several lithic and pumice separates, will always have sam_id's represented by the location followed followed by a dash (-) and a character string, for example RW18B3-WR, RW18B3-PU1, and RW18B3-PU2.

TABLE_NAME	*COLUMN_NAME*	*SHORT_DESC*	*LONG_DESC*
SAMPLE_WORKER	WORK_TYPE_CODE	Topic for sample data referenced	This symbol identifies topic for sample data referenced. Allowed symbols are defined in table topic_list.
SAMPLE_WORKER	WORKER_CODE	Sample characteristic descriptor	This symbol defines the worker responsible for sample description topic. Allowed symbols, generally the worker's initials, are defined in worker_list.
SAMPLE_WORKER	WORK_DATE	Date of sample description	Sample characteristics were described on this date.
SEP_METH_LIST		Method for mineral separation	This table defines symbols that describe the method used to prepare a split of a mineral separate.
SEP_METH_LIST	SEP_METH_CODE	Method for mineral separation	This column defines symbols that describe the method used to prepare a split of a mineral separate.
SEP_METH_LIST	SEP_METH_NAME	Method for mineral separation	This column describes the method used to prepare a split of a mineral separate.
SPLIT_REF		Citations for analytical methods and procedures	This table provides citations for analytical methods and procedures.
SPLIT_REF	SAM_ID	Unique ID for sample	This unique symbol represents up to a few kg of contiguous material from the surface or subsurface. The dash special character (-) designates multiple samples from a single location, and a left parenthesis [(] designates multiple splits from a single sample. Samples from vertical drill holes will always have sam_id's represented by the location, which is the drill hole name, followed by a dash (-) and the sample depth in feet, for example, USWG2-770. Sample depths in meters attach "M" following the metric depth, for example, USWG2-506.65M. Multiple samples from the same location, for example a whole-rock sample and several lithic and pumice separates, will always have sam_id's represented by the location followed followed by a dash (-) and a character string, for example RW18B3-WR, RW18B3-PU1, and RW18B3-PU2.

TABLE_NAME	*COLUMN_NAME*	*SHORT_DESC*	*LONG_DESC*
SPLIT_REF	SPL_ID	Unique ID for split	This unique symbol represents a split of a sample for analysis. A split represents analysis for one or more element or component that is performed by a single laboratory. Usually, a few g is split from the sample and specially prepared for the analytical procedure, such as a glass-covered thin section for petrographic analysis or pulverized rock for chemical analysis. Each thin section and each laboratory's chemical analysis represents a separate split, even if the analyses are performed by different analysts on widely separated dates. Each thin section represents a split, but each batch of sample pulverized for chemical analysis does not. A left parenthesis [(] designates each split from a single sample, such as BH86N/33(B, a polished thin section for sample BH86N/33. Multiple chemical analyses of the same sample by the same laboratory and multiple analyses of the same thin section are considered to represent replicate analyses. To represent split analyses, replicate chemical analyses are averaged, weighted by the inverse square of their analytical uncertainties. Replicate petrographic analyses are ranked; analyses of the same rank are averaged, weighted by the number of point counted. Individual replicate analyses are not stored within the database, but analysts and analytical dates and other information are provided with the analytical data.
SPLIT_REF	REF_TYPE_CODE	Topic for split data referenced	This symbol identifies topic for split data referenced. Allowed symbols are defined in table topic_list.
SPLIT_REF	REF_CODE	Citation for split topic	This symbol provides source of data specified by topic. Allowed symbols are defined in table ref_list.
SPLIT_TYPE_LIST		Analysis type for sample split	This table defines symbols that identify the general analytical type for each split.
SPLIT_TYPE_LIST	SPLIT_TYPE_CODE	Analysis type for sample split	This column defines symbols that identify the general analytical type for each split.
SPLIT_TYPE_LIST	SPLIT_TYPE_NAME	Analysis type for sample split	This column identifies the general analytical type for each split.
SPLIT_WORKER		Analysts	This table provides analysts and dates of analysis.

TABLE_NAME	*COLUMN_NAME*	*SHORT_DESC*	*LONG_DESC*
SPLIT_WORKER	SAM_ID	Unique ID for sample	This unique symbol represents up to a few kg of contiguous material from the surface or subsurface. The dash special character (-) designates multiple samples from a single location, and a left parenthesis [(] designates multiple splits from a single sample. Samples from vertical drill holes will always have sam_id's represented by the location, which is the drill hole name, followed by a dash (-) and the sample depth in feet, for example, USWG2-770. Sample depths in meters attach "M" following the metric depth, for example, USWG2-506.65M. Multiple samples from the same location, for example a whole-rock sample and several lithic and pumice separates, will always have sam_id's represented by the location followed followed by a dash (-) and a character string, for example RW18B3-WR, RW18B3-PU1, and RW18B3-PU2.
SPLIT_WORKER	SPL_ID	Unique ID for split	This unique symbol represents a split of a sample for analysis. A split represents analysis for one or more element or component that is performed by a single laboratory. Usually, a few g is split from the sample and specially prepared for the analytical procedure, such as a glass-covered thin section for petrographic analysis or pulverized rock for chemical analysis. Each thin section and each laboratory's chemical analysis represents a separate split, even if the analyses are performed by different analysts on widely separated dates. Each thin section represents a split, but each batch of sample pulverized for chemical analysis does not. A left parenthesis [(] designates each split from a single sample, such as BH86N/33(B, a polished thin section for sample BH86N/33. Multiple chemical analyses of the same sample by the same laboratory and multiple analyses of the same thin section are considered to represent replicate analyses. To represent split analyses, replicate chemical analyses are averaged, weighted by the inverse square of their analytical uncertainties. Replicate petrographic analyses are ranked; analyses of the same rank are averaged, weighted by the number of point counted. Individual replicate analyses are not stored within the database, but analysts and analytical dates and other information are provided with the analytical data.
SPLIT_WORKER	WORK_TYPE_CODE	Topic for split data referenced	This symbol identifies topic for split data referenced. Allowed symbols are defined in table topic_list.
SPLIT_WORKER	WORKER_CODE	Split worker	This symbol defines the worker responsible for split topic. Allowed symbols, generally the worker's initials, are defined in table worker_list.
SPLIT_WORKER	WORK_DATE	Date of split analysis	Split was analyzed on this date.
STANDARD_LIST		Microprobe standard descriptions	This table relates probe standard IDs used internally by each microprobe laboratory to more widely used names, and provides descriptions and citations for the source of reference analyte values for each standard.

TABLE_NAME	*COLUMN_NAME*	*SHORT_DESC*	*LONG_DESC*
STANDARD_LIST	STANDARD_ID	Microprobe standard ID	This column provides symbols uniformly used for the standard in the microprobe laboratory. Almost all analyses were obtained in the microprobe laboratory of EES-1, Los Alamos National Laboratory, with the assistance of Ronald Gooley, Roland C. Hagen, and Margaret G. (Peggy) Snow. Allowed symbols for microprobe standard IDs are defined in table standard_list, which also identifies and describes each standard.
STANDARD_LIST	PROBE_REF_CODE	Citation for microprobe standard	This column identifies a citation that provides the basis for the analyte concentration used for the microprobe standard. Allowed symbols are defined in table ref_list.
STANDARD_LIST	STANDARD_DESC	Microprobe standard description	This column provides descriptions for each microprobe standard.
STANDARD_OXIDE_VALUE_LIST		Microprobe standard analyses	This table provides analyses for microprobe standards used in this database, listed in table probe_standard_set_list.
STANDARD_OXIDE_VALUE_LIST	OXIDE_LDL	Analyte LDL for microprobe standard	This value provides the lower detection limit for microprobe standard if the analyte is undetectable.
STANDARD_OXIDE_VALUE_LIST	OXIDE_VALUE	Analyte value for microprobe standard	This value provides the analyte concentration for microprobe standard, unless this value represents a lower detection limit; such values are represented as oxide_ldl.
STANDARD_OXIDE_VALUE_LIST	STANDARD_ID	Microprobe standard ID	This column provides symbols uniformly used for the standard in the microprobe laboratory. Almost all analyses were obtained in the microprobe laboratory of EES-1, Los Alamos National Laboratory, with the assistance of Ronald Gooley, Roland C. Hagen, and Margaret G. (Peggy) Snow. Allowed symbols for microprobe standard IDs are defined in table standard_list, which also identifies and describes each standard.
STANDARD_OXIDE_VALUE_LIST	OXIDE_CODE	Analyte for microprobe standard	This column provides standard chemical symbols for each analyte. All analytes are represented by forms that dominate their occurrence within terrestrial rocks, mostly oxides. Allowed symbols are defined in table oxide_list.
STRAT		Stratigraphic units	This table defines symbols for stratigraphic units of the southwestern Nevada volcanic field., their model ages, and names and symbols for previous definitions of stratigraphic units. The table also contains columns useful for listing stratigraphic units in several orders.
STRAT	STRAT_COL_POS	Standard position in stratigraphic column	This column provides integer values that order the list of stratigraphic units of the southwestern Nevada volcanic field in standard geologic fashion.

TABLE_NAME	*COLUMN_NAME*	*SHORT_DESC*	*LONG_DESC*
STRAT	STRAT_NAME	Stratigraphic unit	This column provides stratigraphic units of the southwestern Nevada volcanic field.
STRAT	LOWER_MODEL_AGE	Lower model age	This age provides the best estimate for the beginning of emplacement of a stratigraphic unit. The estimate is based primarily on ages in this database for the subject unit and those immediately underlying.
STRAT	REF_STRAT_NAME	Previous name for stratigraphic unit	This column provides the most commonly used name previously used for the subject stratigraphic unit.
STRAT	REF_STRAT_CODE	Previous symbol for stratigraphic unit	This column provides the most commonly used symbol previously used for the subject stratigraphic unit.
STRAT	UPPER_MODEL_AGE	Upper model age	This age provides the best estimate for the cessation of emplacement of a stratigraphic unit. The estimate is based primarily on ages in this database for the subject unit and those immediately overlying.
STRAT	STRAT_AGE_POS	Age position in stratigraphic column	This column provides integer values that order the list of stratigraphic units of the southwestern Nevada volcanic field by age.
STRAT	YOUNGER_STRAT_CODE	Younger stratigraphic unit	This column defines the symbol for the unit that is younger than the subject stratigraphic unit. The younger stratigraphic unit may actually be listed below the subject unit when laterally equivalent groups are represented sequentially within a standard list of stratigraphic units.
STRAT	STRAT_CODE	Stratigraphic unit symbol	This column defines symbols that represent stratigraphic units of the southwestern Nevada volcanic field.
STRAT	UPPER_STRAT_CODE	Upper stratigraphic unit	This column defines the symbol for the unit that is positioned above the subject unit within a standard list of stratigraphic units. The upper stratigraphic unit may actually lie beneath the subject unit when laterally equivalent groups are represented sequentially within a standard list of stratigraphic units
STRAT	STRAT_GROUP_CODE	Stratigraphic group symbol	This column defines symbols for the stratigraphic group to which the unit belongs. Symbols for a stratigraphic group are generally two-letter symbols, such as Tm, Timber Mountain Group. Allowable symbols are those defined in strat_code.
STRAT_LIST		Stratigraphic units	This table defines symbols for stratigraphic units of the southwestern Nevada volcanic field, and also includes terms to represent stratigraphic constraints, such as unknown and unconstrained. Table strat provides model ages, and names and symbols for previous definitions of stratigraphic units, as well as columns useful for listing stratigraphic units in several orders.

TABLE_NAME	*COLUMN_NAME*	*SHORT_DESC*	*LONG_DESC*
STRAT_LIST	STRAT_NAME	Stratigraphic unit	This column provides stratigraphic units of the southwestern Nevada volcanic field, and also provides terms to represent stratigraphic constraints, such as unknown and unconstrained.
STRAT_LIST	STRAT_CODE	Stratigraphic unit symbol	This column defines symbols that represent stratigraphic units of the southwestern Nevada volcanic field, and also defines terms to represent stratigraphic constraints, such as unknown and unconstrained.
TABLE_DESC		Description of tables	This table describes the tables and columns used within the database.
TABLE_DESC	COLUMN_NAME	Column name	This column identifies the label for a data field within the table.
TABLE_DESC	LONG_DESC	Long description	This column provides a detailed description of the data field identified by "column_name".
TABLE_DESC	SHORT_DESC	Short description	This column provides a brief description of the data field identified by "column_name".
TABLE_DESC	TABLE_NAME	Table name	This column identifies the table to which the definitions are applied. Each table is a collection of closely related data fields (columns). These data fields can be linked to fields in other tables through primary and foreign keys.
TEXTURE_LIST		Grain component texture	This table defines symbols that describe textural features observed for each grain component.
TEXTURE_LIST	TEXTURE_NAME	Grain component texture	This column describes textural features observed for each grain component.
TEXTURE_LIST	TEXTURE_CODE	Grain component texture	This column defines symbols that describe textural features observed for each grain component.
TOPIC_LIST		Topic for citation	This table defines symbols used to identify topics for citations of data, descriptions, or definitions.
TOPIC_LIST	TOPIC_CODE	Topic for citation	This column provides symbols that identify topics for citations of data, descriptions, or definitions.
TOPIC_LIST	TOPIC_NAME	Topic for citation	This column defines topics for citations of data, descriptions, or definitions.
UNITS_LIST		Concentration units	This table defines symbols and descriptions for concentration units associated with analytical values. Concentration units are always provided on a weight basis except for petrographic analyses, which are provided on a volume basis. The same concentration units are consistently used for each chemical analyte or petrographic component.

TABLE_NAME	*COLUMN_NAME*	*SHORT_DESC*	*LONG_DESC*
UNITS_LIST	UNITS_NAME	Concentration units	This column provides concentration units associated with analytical values. Concentration units are always provided on a weight basis except for petrographic analyses, which are provided on a volume basis when quantitative. The same concentration units are consistently used for each chemical analyte or petrographic component.
UNITS_LIST	UNITS_DESC	Concentration units	This column provides a description for concentration units associated with analytical values. Concentration units are always provided on a weight basis except for petrographic analyses, which are provided on a volume basis when quantitative. The same concentration units are consistently used for each chemical analyte or petrographic component.
UNITS_LIST	UNITS_CODE	Concentration units	This column provides symbols for concentration units associated with analytical values. Concentration units are always provided on a weight basis except for petrographic analyses, which are provided on a volume basis when quantitative. The same concentration units are consistently used for each chemical analyte or petrographic component.
WORKER_LIST		Workers	This table defines symbols for workers who have contributed analyses, descriptions, or definitions to the database, and also provides their organization and its location.
WORKER_LIST	WORKER_ORG	Worker's organization	Worker's organization
WORKER_LIST	WORKER_CITY	City of worker's organization	City of worker's organization
WORKER_LIST	WORKER_STATE	State of worker's organization	State of worker's organization
WORKER_LIST	WORKER_CODE	Worker symbol	This column provides symbols that define workers.
WORKER_LIST	WORKER_NAME	Worker	This column provides workers who have contributed analyses, descriptions, or definitions to the database.
XRD_MEASURE		XRD analyses	This table provides mineralogic analyses and their uncertainties for each XRD split.
XRD_MEASURE	MIN_CODE	Mineral analyzed by XRD	This symbol identifies the mineral analyzed by X-ray diffraction analysis (XRD). Allowed symbols are defined in table comp_list.
XRD_MEASURE	MIN_ERROR	Mineral concentration uncertainty	This value is uncertainty in the subject mineral concentration in weight percent.

TABLE_NAME	*COLUMN_NAME*	*SHORT_DESC*	*LONG_DESC*
XRD_MEASURE	MIN_VALUE	Mineral concentration	This value is the subject mineral concentration in weight percent.
XRD_MEASURE	SPL_ID	Unique ID for split	This unique symbol represents a split of a sample for analysis. A split represents X-ray diffraction (XRD) analysis for one or more mineral component that is performed by a single laboratory from a few g split from the sample, pulverized and specially prepared for the analysis. A left parenthesis [(] designates each split from a single sample, such as 3/15/82/1(B, a split of sample 3/15/82/1 analyzed by XRD. Multiple XRD analyses of the same sample by the same laboratory represent replicate analyses. Individual replicate analyses are not stored within the database.
XRD_METH_LIST		Method for XRD analysis	This table defines symbols that descnbe the method used for X-ray diffraction (XRD) analysis.
XRD_METH_LIST	XRD_METH_NAME	Method for XRD analysis	This column provides the method used for X-ray diffraction (XRD) analysis.
XRD_METH_LIST	XRD_METH_CODE	Method for XRD analysis	This column provides symbols that define the method used for X-ray diffraction (XRD) analysis.
XRD_SPLIT		Method for XRD analysis	This table provides the method used for X-ray diffraction (XRD) analysis, the analyst, and the date of analysis. This table also provides other information such as reflection intensities when only these qualitative data are reported. Citations for these data are provided in this table.
XRD_SPLIT	SAM_ID	Unique ID for sample	This unique symbol represents up to a few kg of contiguous material from the surface or subsurface. The dash special character (-) designates multiple samples from a single location, and a left parenthesis [(] designates multiple splits from a single sample. Samples from vertical drill holes will always have sam_id's represented by the location, which is the drill hole name, followed by a dash (-) and the sample depth in feet, for example, USWG2-770. Sample depths in meters attach "M" following the metric depth, for example, USWG2-506.65M. Multiple samples from the same location, for example a whole-rock sample and several lithic and pumice separates, will always have sam_id's represented by the location followed followed by a dash (-) and a character string, for example RW18B3-WR, RW18B3-PU1, and RW18B3-PU2.

TABLE_NAME	*COLUMN_NAME*	*SHORT_DESC*	*LONG_DESC*
XRD_SPLIT	SPL_ID	Unique ID for XRD split	This unique symbol represents a split of a sample for X-ray diffraction (XRD) analysis. A split represents XRD analysis for one or more mineral component that is performed by a single laboratory from a few g split from the sample, pulverized and specially prepared for the analysis. A left parenthesis [(] designates each split from a single sample, such as 3/15/82/1(B, a split of sample 3/15/82/1 analyzed by XRD. Multiple XRD analyses of the same sample by the same laboratory represent replicate analyses. Individual replicate analyses are not stored within the database.
XRD_SPLIT	XRD_METH_CODE	Method for XRD analysis	This symbol provides the method used for X-ray diffraction (XRD) analysis. Allowed symbols are defined in table xrd_meth_list.
XRD_SPLIT	COMMENTS	Comments from XRD analysis	Comments amplify information for an X-ray diffraction (XRD) analysis and provide additional information not otherwise represented in the database, such as reflection intensities provided as comments when only these qualitative data are reported.